Sub-Enclosure to Enclosure 1 in No. 15.

ANALYSIS of COST and CONSUMPTION of NATIVE COAL compared with that from Newcastle, N.S.W., as shown by Experiment on the Christchurch Section of the New Zealand Railways.

No. of Trial.	Name of Owner.	Situation of Colliery.	Cost per Ton in Christchurch.	Quantity Experimented.	No. of Engine.	Weight of Train.	Steam Pressure per Square Inch.	Condition of Road.	State of Weather.	Time-Sheet Delays (if any).	Quantity of Coal per Mile.	Cost of Coal per Mile.	Quantity of Newcastle Coal per Mile.	Cost of Newcastle Coal per Mile.	Remarks.
				Tons.		Tons.					lbs.	d.	lbs.	d.	
1	Mr. Jebson ...	Sheffield ...	20/6	10	G. 52	105	Started with 115 lbs., but had to stop continually to blow up fire and supply boiler	Wet ...	Raining	Lost 3 hours in 70 miles' run	92·84	10·21	21·0	3.36	Engine in first-class order, but unsuited, as it was necessary to carry coal in a truck. These tank engines can never carry a proper supply of native coal.
2	„ ...	„ ...	20/6	10	J. 20	225	Started with 120 lbs.; had to stop every 4 miles to blow up fire and supply boiler	Dry ...	Fine ...	Lost 3 hours and 15 minutes in a run of 36 miles	82·0	9·02	25·0	4·0	The grate bars of engine were altered to suit this coal, but the result was entirely unsatisfactory.
3	Mr. Parker ...	Springfield ...	23/6	10	J. 20	217	120 lbs.	„ ...	„ ...	None	57·0	6·38	23·0	3·68	Kept time very well, but considerable time and labour wasted at stations cleaning fires.
4	Mr. Sheath ...	Malvern ...	15/	10	J. 20	100	Started with 120-lb. pressure, but could not be maintained	„ ...	„ ...	Lost 10 minutes in 106 miles	59·0	4·72	21·0	3·36	With a heavy load it was found impossible to maintain steam.
5	Mr. McIlwraith ...	Glentunnel ...	18/6	10	J. 20	235	Started at 120 lbs.; had to stop continually to raise pressure and supply boiler	Wet ...	Boisterous wind	Lost 40 minutes in 53 miles	125·0	12·37	34·0	5·44	Found impossible to maintain pressure in boiler.
	Mean ...	...	19/7·2	...	...	176·4	...	...	...	...	83·17	8·54	24·8	3·97	

ALLISON D. SMITH,
Locomotive Engineer.