## FURTHER PAPERS RELATING TO

Enclosure 2 in No. 1.

APPROXIMATE ESTIMATE-Otago Southern Trunk Railway.

Invercargill and Mataura Section—length, 40 miles 20 chains; single line of railway, 3 feet 6 inch gauge; weight of rails, 36 lbs. to the yard.

gauge; weight of rails, 36 lbs. to the yard.											,
Earthwork—									£	s.	d
Main Line	•••	232,478	cub. yds.	,							
Deviations and Approaches	•••	21,412	,,								
Stations and Sidings		14,000	"								
	_		267,890,	at	1s. 1	ld. per	cubic yard	•••	14, 510	14	<b>2</b>
Ballast—						-	-				
Main Line	•••	88, 550	cub. yds.								
Stations and Sidings		4,400	,,								
5	-		92,950,	at	1s. 8	3d. per	cubic yard	•••	7,745	16	8
Rails—			, ,			r	-				
Main Line		2,295	tons								
Stations and Sidings		114	**								
5	-	<u> </u>	2,409,	at	£9 1	per ton			22,885	10	0
Dog-spikes, Fish-plates, and Bolts-	-		, ,		·						
Main Line		91	tons								
Stations and Sidings		4	<u>L</u>								
	···.		· 95 <sup>1</sup> / <sub>3</sub>	at	£10	per to:	n	•••	955	0	0
Sleepers—			003			Porto		•••		•	·
Main Line		85.008	sleepers								
Stations and Sidings		4,224	sicopers								
			,,, 89,232,	at	2s e	aach		•••	8,923	4	0
Mls. chs.			00,202,		<b>4</b> 0, t	Juon		•••	0,020		v
Bridges at 0 16, superstructure to	be i	renewed							200	0	0
1 34 one 25 feet span									150	Ō	Ō
5 70 three 95 feet sna								•••	450	Õ	ŏ
9 7 one 25 feet snan									150	ŏ	ŏ
25 51 two 25 feet span						•••	•••	•••	300	ŏ	ŏ
31 56 three 30 feet ana		•••				•••	•••	••••	<b>5</b> 40	ŏ	ŏ
36 $49$ one 15 foot sugar		• • •				•••	•••	•••	90	ŏ	ŏ
40 11 twenty 30 feet sn	 971	•••				•••	•••	•••	4,000	ŏ	ŏ
Culverts, seventeen 3-feet openings a		 8 oach				•••	•••	•••	476	ŏ	ŏ
						•••	•••	•••	120	Ő	ŏ
, four 4-feet openings at $\pounds 30$				•		•••	•••	•••		~	0
" one 5-feet opening at £35		-1. 		•		•••	•••	•••	35	0	
,, eight 6-feet openings at $\pounds 4$				•		•••	· • •	•••	360	-	0
" two 10-feet openings at £6	a = a a a a a a a a a a a a a a a a a a	n		•		•••	•••	•••	130	0	0
Level Crossings, Gates, &c., twenty-	nve a	015	icn			•••	•••	•••	500	0	0
Fencing Ditch and Bank, eighty mile	es at	æ15 per	cham	•		•••	· · ·	•••	4,800	0	0
Points, Switches, and one Turntable			 alaataa ata			···	•••	•••	1,500	10	0
Laying Permanent Way, Main Line,				ມວ	o pe	r mile	•••	•••	2,012		0
Stations and Sidings, 2 miles at	£90	per mile		•		•••	•••	•••	100	0	0
Rolling Stock—	,								0 000	0	~
Four Locomotives at £1,500 ca	ch	,	• ••	•		•••		•••	6,000	0	0
Four composite Carriages at £3		ich	• ••	•		•••	•••	•••	1,200	0	0
Forty open Goods Waggons at	£85	each	• ••	•		•••	•••	•••	3,400	0	0
Ten covered Goods Waggons at	±11	0 each		•		•••	•••	•••	1,100	0	0
Two Break Waggons at £150 ea	ach	•••	• ••	•		· • •	•••	•••	300	0	0
Stations—	~	,								~	~
Six Platforms and Sheds at $\pounds 25$	0 eac	eh		•		•••	···	•••	1,500	0	0
Water Tanks	•••			•		•••		•••	300	0	0
Land—Purchase of about ninety-fou	r acr	es		•		•••		•••	1,000	0	0
Engineering expenses		••		•		•••		•••	4,250	0	0
Contingencies, 10 per cent	•••			•		•••		•••	8,980	0	0
										<u> </u>	
Total	•••	••		•		•••	•••	£	<b>E98, 963</b>	14	10

## MATAURA TO CLUTHA.

No. 2.

## Mr. BRUNTON to the Hon. W. GISBORNE.

SIR,---

Princes Street, Dunedin, 6th July, 1871.

I have the honor to forward with this plan section and estimate of the "Long Ford" and "Clutha" section of the Otago Southern Trunk Railway. In a former report on the country over which the Invercargill and Long Ford section of this line runs, I characterized it as one rarely to be met with for favourable features in railway construction. The character of the country now in question is much the reverse; it being difficult from its irregularities, and involving a largely increased amount of earthwork, in order to obtain a line not having by steep grades a permanent bar to its success. This after many trial sections I have been able to obtain as will be seen from the section and plan the steepest gradient being 1 in 92 and the able to obtain, as will be seen from the section and plan, the steepest gradient being 1 in 92, and the