

Table No. 23.

INSULATION TESTS of the FIRST and SECOND COOK STRAIT CABLES for the Year ended 31st December, 1892, showing the Resistance per Knot after Two Minutes' Electrification in Megohms (British Association Units of Resistance).

First Cook Strait Cable.	Dielectric Resistance per Knot.			Second Cook Strait Cable.	Dielectric Resistance per Knot.
	No. 1 Wire.	No. 2 Wire.	No. 3 Wire.		
January .. .. .	89	127	260	January .. .. .	953
February .. .. .	86	127	266	February .. .. .	779
March .. .. .	87	124	241	March .. .. .	838
April .. .. .	83	126	253	April .. .. .	703
May .. .. .	Broken.			May .. .. .	Broken.
June .. .. .					
July .. .. .					
August (after repair) .. .. .	116	170	332	August (after repair) .. .. .	781
August .. .. .	101	173	291	August .. .. .	21'40
September .. .. .	101	180	302	September .. .. .	1,142
October .. .. .	100	181	313	October .. .. .	802
November .. .. .	87	160	282	November .. .. .	22'7
December .. .. .	99'9	187	299	December .. .. .	1,498

Table No. 24.

INSULATION TESTS of the WANGANUI and WAKAPUKA CABLE for the Year ended 31st December, 1892, showing the Resistance per Knot after Ten Minutes' Electrification in Megohms (British Association Units of Resistance). Length of Cable laid, 108'69 Knots.

Date.	Dielectric Resistance per Knot.	Copper Resistance per Knot in Ohms.	Mean Temperature of Sea-bottom, calculated from the Observed C.R.
	Twenty Cells.		Deg. Fahr.
January .. .. .	5,279	11'02	60
February .. .. .	4,621	10'997	59
March .. .. .	5,782	11'408	76
April .. .. .	4,250	11'128	64'5
May .. .. .	6,040	11'042	60'5
June .. .. .	3,316	11	59
July .. .. .	6,929	10'996	59
August .. .. .	6,670	10'912	55
September .. .. .	5,685	10'93	56
October .. .. .	6,179	10'873	53'6
November .. .. .	6,024	10'979	58
December .. .. .	5,593	10'97	57'7

Table No. 25.

## MAINTENANCE.

Section.	No. of Miles.	Travelling Expenses of Linemen and Inspectors.	Extra Labour.	Cost of Material used for Repairs.	Salaries of Linemen and Inspectors.	Total Cost of Maintenance.	Average Cost per Mile.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Riverton to Balclutha ..	461	152 8 10	583 16 2	1,013 11 11	278 0 0	1,977 16 11	4 5 10
Tokomairiro to Queenstown ..	323	201 14 5	165 1 6	284 6 10	240 0 0	891 2 9	2 15 2
Balclutha to Waitaki ..	553	373 10 0	1,090 12 11	1,962 9 1	550 0 0	3,976 12 0	7 3 10
Waitaki to Christchurch ..	400	189 13 9	367 5 6	2,013 19 7	558 0 0	3,128 18 10	7 16 5
Christchurch to Kumara ..	204	305 19 5	560 19 2	572 14 10	502 0 0	1,941 13 5	9 10 4
Kumara to Lyell ..	165	203 14 8	208 18 1	120 7 6	425 0 0	958 0 3	5 16 1
Lyell to Nelson ..	265	153 15 5	155 2 0	175 0 10	205 0 0	688 18 3	2 12 0
Nelson to Blenheim, including Tophouse Line	140	101 5 6	121 6 10	273 5 5	320 0 0	815 17 9	5 16 7
Blenheim to Kaikoura ..	100	155 5 0	283 9 9	275 16 10	288 0 0	1,002 11 7	10 0 6
Kaikoura to Christchurch ..	216	61 0 11	304 9 1	285 19 11	400 0 0	1,051 9 11	4 17 4
Wellington to New Plymouth ..	576	423 12 4	516 15 3	1,284 15 1	1,166 0 0	3,391 2 8	5 17 9
Wellington to Te Nui ..	172	198 4 8	130 2 1	238 19 2	735 0 0	1,302 5 11	7 11 5
Te Nui to Napier ..	186	184 1 3	475 8 3	438 2 9	220 0 0	1,317 12 3	7 1 8
Napier to Tauranga ..	547	462 13 5	689 9 1	492 6 6	690 0 0	2,334 9 0	4 5 4
Tauranga to Thames ..	76	56 17 0	163 15 0	96 10 6	153 0 0	470 2 6	6 3 9
Auckland South ..	527	514 0 3	722 9 1	665 3 5	380 0 0	2,281 12 9	4 6 7
Auckland North ..	568	303 13 8	650 19 3	565 11 3	530 0 0	2,050 4 2	3 12 2
Totals .. .. .	5,479	4,041 10 6	7,139 19 0	10,759 1 5	7,640 0 0	29,580 10 11	*5 8 0

\* Average per mile of total cost.