

REPORT ON THE TELEGRAPH DEPARTMENT.

Table L.

COST of MAINTENANCE of TELEGRAPH LINES for the Financial Year ending 30th June, 1870.

SECTION.	No. of Miles.	Salaries of Linemen.			Travelling Expenses.			Extra Labour.			Cost of Material used for repairs.			Total Cost of Maintenance.			Cost Per Mile.		
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Bluff to Balclutha	114	168	17	5	260	15	3	277	19	6	158	9	0	866	1	2	7	11	11½ ^a
Tokomairiro to Queenstown ...	140	213	6	1	269	6	10	482	16	4	796	13	3	1,762	2	6	12	11	9 ^b
Balclutha to Waitaki	152	257	1	8	369	14	6	872	12	4	1,047	9	1	2,546	17	7	16	15	0 ^c
Waitaki to Christchurch	148	308	6	8	256	9	3	360	13	3	381	9	1	1,306	18	3	8	16	7½ ^d
Christchurch to Greymouth ...	176	397	10	0	502	4	0	481	14	0	311	5	6	1,692	13	6	9	12	4 ^e
Greymouth to Westport	67	150	0	0	242	16	4	...	...	...	26	3	6	418	19	10	6	5	1
Christchurch to Blenheim ...	208	427	10	3	278	5	5	376	5	4	407	0	1	1,489	1	1	7	3	2 ^f
Blenheim to Nelson, including White's Bay line	92	333	13	4	119	14	2	292	13	6	98	4	8	844	5	8	9	3	6½ ^g
Wellington to Napier	221	560	0	7	288	3	0	142	7	2	82	15	2	1,073	5	11	4	17	0 ^h
Wellington to Patea	180	108	14	9	206	14	2	32	19	6	43	19	6	392	7	11	2	3	7
	1,498	2,925	0	9	2,794	2	11	3,320	0	11	3,353	8	10	12,392	13	5	8	5	5½*
Auckland lines	164	729	11	8	633	7	3	157	19	0	206	13	6	1,727	11	5	10	10	8 ⁱ
Totals	1,662	3,654	12	5	3,427	10	2	3,477	19	11	3,560	2	4	14,120	4	10	8	9	11 ^k

* Cost per mile Bluff to Napier and Patea.

^a Includes cost of lowering old poles between Invercargill and Balclutha. ^b Includes cost of reconstruction from Tokomairiro to Alexandra. ^c Includes cost of reconstruction from Balclutha to Waikouaiti, and insertion of new poles and running third wire from Dunedin to Tokomairiro to join goldfields line. ^d Includes cost of reconstruction from Timaru to Christchurch. ^e Includes cost of reconstruction of thirty miles of line from Hokitika to Bealey. ^f Includes cost of reconstruction from Christchurch to Woodend. ^g Includes cost of reconstruction of three miles of line south of Nelson; insertion of new totara poles from the junction of Blenheim and White's Bay line to Picton, and insertion of fifty totara poles, and running of third wire from junction to White's Bay. ^h Includes cost of clearing bush at the Taueru; running the second wire from Tenui junction to Castle Point, and sundry deviations of the line between Featherston and Hutt. ⁱ Includes cost of repairs of line between Cambridge and Alexandra; dismantling of old line between Alexandra and Newcastle; also of branch line to Kihī Kihī, and extra cost of maintenance of old line between Newcastle and Auckland prior to reconstruction. ^k Total average cost per mile.

Table M.

INSULATION TESTS of the COOK STRAIT CABLE for the Years ending 30th June, 1868, 1869, and 1870, respectively, showing the resistance per knot, after two minutes' electrification, in millions of Ohms (British Association units of resistance).

DATE.	No. 1 Wire.	No. 2 Wire.	No. 3 Wire.	DATE.	No. 1 Wire.	No. 2 Wire.	No. 3 Wire.	DATE.	No. 1 Wire.	No. 2 Wire.	No. 3 Wire.
1867—				1868—				1869—			
September 1 ...	473	71	554	September 11 ...	630	22.5	946	July 27 ...	649	9.	1,104
" 30 ...	634	102	634	" 17 ...	697	63.5	1,000	August 24 ...	667	7.	1,200
October 14 ...	547	179	620					September 27 ...	745	13.	1,274
November 1 ...	598	32.6	667					† October ...	...	...	...
" 14 ...	574	10.6	643					November 8 ...	582	5.	1,253
December 2 ...	608	10.5	709					December 3 ...	638	2.5	1,159
				1869—				1870—			
				March 27 ...	467	26	729	January 22 ...	526	2.	865
				April 19 ...	483	30	748	February 22 ...	417	3.	707
				May 11 ...	562	31	950	March 18 ...	442	3.4	967
1868—				" 20 ...	344	2.06	619	" 26 ...	430	8.6	812
* June 7 ...	930	5.5	1,094	May 17 ...	531	14	963	May 31 ...	456	4.46	871
				" 22 ...	522	15	931	June 26 ...	355	2.3	622

* This test was taken with zinc to earth, and the others with copper to earth. † No test taken.