EIGHTH

ANNUAL REPORT

ON THE

WORKING AND PROGRESS

OF THE

NEW ZEALAND TELEGRAPH DEPARTMENT.

PRESENTED TO BOTH HOUSES OF THE GENERAL ASSEMBLY, BY COMMAND OF HIS EXCELLENCY.

WELLINGTON.

1872.



EIGHTH ANNUAL REPORT

OF THE

TELEGRAPH DEPARTMENT, NEW ZEALAND.

Office of the Commissioner of Telegraphs,

Wellington, 24th July, 1872. SIR,-I have the honor to submit to Your Excellency a report as to the operations of the Telegraph Department of New Zealand during the year ended 30th June, 1872, being the Eighth Annual Report of the Department.

I have, &c.,

JULIUS VOGEL, Commissioner of Telegraphs.

His Excellency Sir George Ferguson Bowen, K.C.M.G., &c., &c., &c., Governor of New Zealand.

REPORT.

THE progress made during the past year in the extension of the Telegraph has been greater than in any former year; the larger increase to the business of the Department through the introduction of the Is tariff becoming more apparent every day, and having already rendered it necessary in some places to increase the number of wires. The great increase in business may also be attributed in a measure to the opening of the line to Auckland, and also to the general revival of trade throughout the Colony. With the exception of New Plymouth, every town of any size is now included in the Telegraph

EXTENSION OF LINES.

The lines which were in course of construction at the date of the last report have been completed. They are as follow:-

TAURANGA TO KATI KATI.

This line was completed on the 30th January, and telegraphic communication was established with Wellington on the same day. The length of the line is thirty miles, and it runs round the harbour from the town of Tauranga to Kati Kati. Up to the time when the extension was commenced, there had been no survey for a through road from Tauranga to Kati Kati. Travelling along the proposed line was therefore extremely difficult, as may be judged from the fact that there are thirteen tidal creeks, several patches of mudflats, and many narrow deep swamps within the thirty miles. By careful examination of the ground, a good and straight line has been secured. Care has also been taken to provide for the future rapid repair of the line in case of casualties; and, except the Wainui River, there is nothing on the route to prevent, under ordinary circumstances, the quick completion of repairs. The single difficulty, it is to be hoped, will shortly be overcome, for it is understood that the road works now in progress between Tauranga and Kati Kati include a bridge across the Wainui.

As a protection against fire, fern ground in which it was necessary to place poles has been

trenched, and rye grass and clover seed, mixed, have been sown round each pole, to a radius of 10 feet

PATEA TO NEW PLYMOUTH.

This line still remains incomplete, there being twenty-five miles north of Opunake unfinished. During the year, the line has been extended twenty-two and a-half miles-from New Plymouth to a point two and a half miles south of Stoney River, between which places communication was established on the 13th April; generally the line follows the road.

In order to render communication between Stoney River and Opunake as complete as possible, a telegraph mail service has been established, which leaves each place at noon daily, Sundays excepted, and arrives about 4 p.m. It is to be hoped that during the present year the Native opposition will be so far overcome as to permit of the line being finished.

AKAROA LINE.

This line was completed on the 20th January, and communication was established on the same day. The length of the line is about fifty miles, and it runs, for the most part, along the coach-road between Akaroa and Christchurch. The line has been made as permanent as possible; where it passes through bush, additional clearings have been made, and only totara timber has been used for poles.

Office accommodation at Akaroa was provided by adding three rooms to the buildings used as Resident Magistrate's Court and Post Office. The cost of the line has been £2,409 16s. 7d. Details will be found in Table A.

LINES PROJECTED AND FINISHED DURING THE YEAR.

THIRD WIRE, DUNEDIN TO OAMARU.

Owing to the great increase of business between Oamaru and Dunedin, and at intermediate stations, it was deemed prudent to run a third wire between the two places; and the work was completed about the middle of April. It is intended, when necessary, to continue this wire to Christchurch. The length already in place is ninety-seven miles, including a branch wire to Kakanui. Details as to the cost of material and erection (including the insertion of new poles where necessary) are given in Table A.

KAKANUI LINE.

This branch runs from the main trunk line, about four miles south of Oamaru, and connects the township of Kakanui with the telegraph system. The length of the line is three and a half miles. The station was opened under a guarantee given by the New Zealand Meat Preserving Company.

NELSON TO MOTUEKA.

This line of twenty-two miles was erected at the request of the Provincial Government of Nelson, under guarantee. Starting from Nelson, the line skirts the main road to Motueka as far as the foot of the Moutere Hills. Across those hills the line is not at any point out of sight from the road; and from Moutere to Motueka it again runs along the roadside. The bush clearings did not exceed a mile. The construction was commenced early in March last, and was completed on the 9th May; communication being established on the 27th May. Pending the completion of the office at Motueka, premises have been rented. Since the line was started, the Nelson Government have made a further request for a station to be opened at Richmond, about half way between Nelson and Motueka, and steps have been taken to comply with the request. It is intended to combine the duties of Postmaster and Telegraphist at Motueka and at Richmond; and by one of the officers the duties of Lineman will also be performed. The construction was superintended by Mr. Walter Blake. The cost, &c., is stated in Table A.

SECOND WIRE BETWEEN NAPIER AND TAURANGA.

When it became certain that the line between Kati Kati and Grahamstown could be carried through without Native opposition, it was determined—in order to provide for the great increase of work likely to result from Auckland being brought into communication with the rest of the Colony—to add a second wire between Napier and Tauranga. The work between Tauranga and Taupo (110 miles) was commenced near the close of December, and was finished on the 13th February. The section between Taupo and Napier (ninety miles), was not completed until the end of May, partly owing to the line having to be shifted in many places to the road as now completed, which entailed extra clearing of bush to secure the wires from falling timber. The bush at many points was unusually heavy and dense, and the work generally was retarded by wet weather, as well as by the roughness of country through which it was necessary in places to go.

KATI KATI TO GRAHAMSTOWN.

This line was commenced on the 1st January, and communication between Auckland and Wellington, via Grahamstown, was established on the 12th April. The length of the line between Kati Kati and Grahamstown is forty-three miles. From Kati Kati the wires are carried along the coast, well back from the sea. After crossing the range at Waihi, it runs parallel with the coast through Mataora and Parakiwai to the main dividing range. This is crossed so that the line strikes the valley of the Thames at the Hikutaia River. Thence to Omahu, flats and low hills only are crossed; and from Omahu the wires run near the Gold Fields line, until meeting the posts of the Auckland and Thames line, they are carried on them to the office at Grahamstown.

The total length of bush clearing on this line is over seven miles and a half. Great care has been taken to make the line as strong as possible. The posts are of kauri and totara, the latter being used wherever practicable. Precautions against fire have been adopted as on the Tauranga and Kati Kati line.

To facilitate the work of repair and inspection, side cuttings have been made over steep hills; across some of the creeks, bridges have been thrown; and swamps have been rendered passable for horsemen. The bush clearings are two chains wide, and trees that might, by falling, interrupt the working of the line, have been removed from each side of the cuttings.

The carrying out of this most important line was intrusted to Mr. W. H. Floyd, Electrician to the Department, whose constant and zealous attention to the work no doubt contributed greatly towards its completion eighteen days within the contract time.

LINES IN COURSE OF CONSTRUCTION.

WAIAU LINE.

This will be a branch from the main trunk line between Leithfield and Cheviot. It will start from Leithfield on the present poles, to the north bank of the Waipara; thence by new poles, along the Great North Road, through a fine, flat, and gently rolling country, to Waiau.

The estimated distance from the Waipara to Waiau is about thirty-seven miles, or from Leithfield forty-three miles. Contracts have been entered into for the cartage of the poles and other material, and the erection is being carried on under the supervision of Mr. Blake. It is expected the line will be completed about the middle of July. Two stations are being erected, one at Hurunui, the other at Waiau. At each, the duties of the Postal and Telegraph Departments will be combined.

REEFTON LINE.

This line will start from Greymouth; follow the eastern bank of the Grey River; cross the Ahaura, at which place a Post and Telegraph Station will be opened; and thence to Reefton. The Grey will again be crossed about three miles eastward of the junction of the Mauhuariti. The estimated length of the line is fifty miles, nearly forty miles being through bush.

The construction, &c., is being carried on under the supervision of Mr. Bird; and it is expected that the line will be completed about August. The station at Reefton will be combined with the Post

Office.

COROMANDEL LINE.

When the erection of this line was first contemplated, two routes were said to be available for the carrying of the wires between Grahamstown and Coromandel—one by the ranges, following the

present bridle-track, and the other by the sea beach, or in close proximity to it.

On inspection, so far as the actual examination of the country was possible, it was found that the route by the ranges would not only be most difficult, but very expensive. It was therefore determined to examine the beach route, which was found to be the better, not only on account of its being more accessible, but also as being seven miles shorter. The line, as projected, follows the coast, but cuts across any projections where it can be done with advantage.

The line will probably be completed early in July: its estimated length is twenty-eight miles. A site for a Telegraph Station at Kapanga, the terminus of the line, has been kindly placed at the disposal of the Department by Mr. N. Glover, of that place; and a building on the allotment, has been purchased from Mr. Glover, and is being altered to render it convenient as a Post and Telegraph

Office

The examination of the routes in this case was intrusted to Mr. Alfred Sheath, District Inspector, under whose supervision the works are being carried on.

INVERCARGILL TO WINTON.

The wire for this line will be carried on the poles used for the Riverton line, to a point about five miles from Invercargill, where the railway line to Winton crosses; and it will then run alongside the railway to Winton. A tender for the supply and delivery of all-heart of totara poles has been accepted, and it is expected the line will be opened about October. The estimated length of wire is nineteen miles, the new poles extending over fourteen miles.

MAINTENANCE AND REPAIRS.

BLUFF TO BALCLUTHA.

The line from Bluff to Invercargill has not given trouble during the past year. An inspection made during December showed that it would be necessary to re-pole the line between Invercargill and Balclutha. Tenders, to be delivered not later than January, were at once called for; and it was found that between Invercargill and Mataura the cheapest plan would be to supply the poles from Wellington, those needed from Balclutha to Mataura being supplied by contract from Balclutha. The re-poleing has been completed from Invercargill to Otaria; and it is expected that the remainder of the distance will shortly be completed. Only heart of totara poles are being used, and where possible the route of the line will be altered so as to increase its stability.

BALCLUTHA TO WAITAKI.

Between Balclutha and Tokomairiro, a few repairs have been made during the year. A severe storm on the 23rd December, did some slight damage to the wires on the ranges near Balclutha.

Between Tokomairiro and Dunedin, one hundred and thirty-five new poles have been inserted in place of decayed ones which, when the line was reconstructed, were allowed to remain as good for another year's service.

Dunedin to Waitaki: When the third wire was being run to Oamaru, one hundred and ten new poles were inserted in place of the old round ones first used, which, from their decayed state, and the additional weight of wire they would have to carry, it was not advisable to allow to remain.

Between Oamaru and Waitaki there are fourteen miles of old poles, which were shortened early in 1869; and which it will be advisable, during next summer, to provide for replacing, as, if allowed to remain during another year, they would probably cause serious interruption.

PALMERSTON TO NASEBY.

This line, which was finished in June, sustained considerable damage during August, the wires being broken in several places through the weight of snow that accumulated on them. Otherwise, only ordinary repairs have been required.

TOKOMAIRIRO TO QUEENSTOWN.

About one hundred new poles have been erected between Tokomairiro and Waitahuna, replacing the poles first erected by the Provincial Government of Otago. There still remain about thirty-six miles of the original poles, many of which will have to be replaced within the next eighteen months. This line has suffered very little from casualties.

WAITAKI TO CHRISTCHURCH.

The casualties on this length have been nearly all confined to the neighbourhood of large rivers, across which the wires are carried. The old poles between the Rakaia and the Rangitata—already lowered once—will probably have to be replaced during the summer.

CHRISTCHURCH TO HOKITIKA AND GREYMOUTH.

This line has been reconstructed during the year. Between the Bealey and the Selwyn, new poles cut from heart of totara have replaced the old ones, which had once been lowered since the line was purchased from the Provincial Government of Canterbury. Eleven sets of tube poles have been fixed at the crossing of the Waimakariri, where great expense and trouble were formerly caused by floods. Between the Bealey and Hokitika, fifteen miles of new totara poles have been crected. From Hokitika to Greymouth the line has been repoled nearly throughout, and two additional wires are being put up on the same poles. The three wires were necessary to provide for the increased work that will result from the completion of the line between Greymouth and Reefton. It is anticipated that this line will require very little beyond ordinary expenditure during the year. The section suffers severely at times from snow storms, owing to the high country through which it passes on the west of the Bealey. During June, interruptions from that cause were frequent.

GREYMOUTH TO WESTPORT.

This section is being thoroughly repaired. Where new poles are required, they are procured from the bush through which the line passes; but in some places near Brighton, where it was possible to convey built poles, made of heart of totara, it was deemed advisable to use them. The repairs have been completed as far as Charleston.

CHRISTCHURCH TO BLENHEIM.

Only a little trouble, except from ordinary casualties, has been caused during the year, but the Hapuka, north of Kaikoura, through a very heavy flood, caused some damage to the line. It is intended shortly to remove the line so as to reach a crossing-place some half-mile further up stream, as on the south bank, where the wire now crosses, the river has encroached sufficiently to imperil the safety of the line should another heavy flood occur.

BLENHEIM TO NELSON.

Between Blenheim and a point four miles north of Havelock, only slight repairs have been needed; but from that point to Nelson, the poles will require to be renewed this summer. Totara poles will be used wherever possible.

WANGANUI LINE.

This section, which embraces all the line north of Patea to Opunake, remains in first-class condition. During the summer, steps have been taken to protect from fire the poles from Bull's to Opunake. Between Bull's and Wanganui, the line runs alongside the road, which is in many places fenced with gorse hedges. From the neglected state of those hedges the gorse is in many places gradually overgrowing the road. At one point, during the summer, a fire originating in one of those hedges destroyed four or five poles, and interrupted communication for a short time. To prevent a similar occurrence, the gorse surrounding poles has been cleared away; but it is not fair that the Department should have to incur such an expense, as it might have been saved by attention on the part of the proprietors on whose lands the hedges are.

WELLINGTON TO NAPIER.

This section has not caused trouble, except on a few occasions. Should the business of the Department continue to increase at the present rate, it will be necessary, during the next season, to run a third wire between Wellington and Masterton, and between Napier and Waipukurau. By this plan, there will be two through wires to Napier without any intermediate station on them, with the exception of Castle Point. The increased accommodation will prevent overcrowding, which would certainly result with only the present wires.

NAPIER TO TAURANGA.

Except that severe damage was done near Maketu by lightning during the autumn, nothing worthy of note has occurred in this section. The running of a second wire on the present poles has already been referred to.

AUCKLAND LINES.

The third wire which, at the date of the last report, was being erected between Auckland and Mercer, has been completed, and it has proved a great relief to the pressure occurring during the great excitement which at times prevails on the Thames Gold Fields. It is anticipated that a fourth wire as far as Mercer will shortly be required, as well as a third wire from Mercer to Grahamstown, should the Coromandel Gold Fields, with which Grahamstown will shortly be in communication, continue to give indications of increasing richness.

The Waikato lines continue in good repair, except that between Cambridge and Alexandra, which, being merely a branch, it was deemed advisable not to repair permanently when the Auckland lines were being reconstructed. The question of renewing this branch must however be considered, as it will soon be impossible satisfactorily to maintain communication, owing to the rottenness of the poles. The branch is of little value as a revenue-yielder; but Alexandra is a place of importance as regards Native matters, and if that consideration renders an efficient line desirable, the branch must be wholly reconstructed.

The cost of maintenance of the several sections is stated in Table B; and the yearly records of the tests for insulation of the Cook Strait Cable are given in Table C. Each of the three wires in the

cable remain in as good condition as ever.

MISCELLANEOUS.

During the year, 3,036 money order telegrams, representing £13,936 0s. 5d., have been transmitted; the joint revenue to the Postal and Telegraph Departments being £504 16s. 6d. Of this amount, £151 16s. was collected by the Post Office for the Telegraph Department, the balance, £353 0s. 6d, This shows a profit of over two and a half per cent. to the Post Office on the It will be seen from Table G, that Wellington, Christchurch, and Dunedin, being for commission. year's transactions. including their respective sub-offices, issued and paid the largest number of orders. Not one mistake has occurred in the transmission of these telegrams, a fact which evidences the care and attention bestowed on this branch of the service.

Forty-two complaints have been made in writing during the year. Of these, sixteen proved not to involve fault on the part of the Department, some of the errors complained of being caused by indistinct writing. In the twenty-seven other cases, the officers in fault were fined or severely reprimanded.

The number of telegrams of all codes transmitted during the year was 411,797, which exceeds those

of the previous year by 98,893, or an increase of nearly 32 per cent.

After making all deductions for salaries, maintenance of line, &c., there remains to the credit of

the Department for the year, £6,614 10s. 2d. (Table K.)

Although the length of line maintained during the year has been in excess of that during the previous year, the cost of maintenance has been reduced by £2,485 4s. 1d.

Eighteen cadets have been trained in the learners' gallery, and have during the year been drafted off to various stations. Nine new offices have been opened.

The usual statistics, in addition to those referred to, are appended hereto.

SCHEDULE OF TABLES.

Table A.—Total Cost of Lines.
" B.—Cost of Maintenance of Lines.

C.—Insulation Tests, Cook Strait Cable.

D.—Cash Revenue and Expenditure, Signals Department.

E.—Comparative Quarterly Return, Years ending June, 1871 and 1872.

F.—Number of Telegraph Money Orders issued and paid.

H. Annuel Comparative Progress of the Department. H .- Annual Comparative Progress of the Department.

I.—Value of Government Telegrams. K .- Debtor and Creditor Statement.

TABLES REFERRED TO IN THE FOREGOING REPORT.

Table A.

TOTAL COST of the LINES of TELEGRAPH throughout New ZEALAND, and of the COOK STRAIT CABLE.

SECTION OF LINE.	Length of Section in Miles.	Cost of Clearing Bush.	Total Cost of Poles for Section, including Delivery.	Cost of Wire, Arms, Insulators, &c. including Cartage.	Cost of Erection.	Total Cost of Section.	Cost per Mile.
Riverton to Invercargill Bluff to Invercargill Invercargill to Mataura Mataura to Waitaki	24 19 32 189	£ s. d.	£ s. d. 547 2 10	96 10 11 739 1 4	262 12 7 812 15 6 469 11 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	42 15 6a 75 4 9
Waitaki to Hurunui Hurunui to Nelson White's Bay Line Port Chalmers Line	218 241 7 8	1,229 3 3 	6,554 8 8	3,427 13 6	3,760 19 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{cccccccccccccccccccccccccccccccccccc$
Christchurch to Greymouth Greymouth to Westport Blenheim to Woodend, recon- struction, including White's	176 67	1,951 7 6			3,808 0 0 3,019 17 9		104 10 5
Bay Line (194 miles) Palmerston to Naseby Tokomairiro to Queenstown Tokomairiro to Queenstown,	 54 140	100 0 0 	5,136 12 5 754 14 10 		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	55 7 7 $26 12 6$ $31 13 2g$
reconstruction, 140 miles Third Wire from Dunedin to Oamaru (including loop line to Kakanui, 4 miles),		•••		020.10.11	2,247 3 10		16 1 0
94 miles Christchurch to Hokitika, re- construction, 146 miles Christchurch to Akaroa	4 50	65 10 0		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	873 12 11 817 18 5	3,202 2 9 2,409 16 7	16 3 10 21 18 8 48 3 11
Nelson to Motueka Totals, South Island	$\frac{32}{1,261}$	$\frac{10\ 10\ 0}{3,356\ 10\ 9}$			$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Lyell's Bay to Wellington Wellington to Patea Wellington to Masterton Masterton to Castle Point Castle Point to Porangahau Porangahau to Napier Napier to Tauranga Auckland to Cambridge, via old line to Alexandra, in-	4 180 60 36 53 68 200	67 18 6 264 4 6 22 15 1 176 9 4 74 0 0 153 18 6	2,362 10 0 2,459 15 6	2,315 9 5 839 4 4 388 18 6 722 18 6 918 9 8	3,062 11 9 2,357 6 3 1,267 9 1 1,105 16 10 1,252 10 2	10,093 12 3 3,460 15 1 1,679 2 8 4,367 14 8 4,704 15 4	71 6 0 56 1 6k 57 18 4k 46 19 6k 82 8 2 69 3 9 105 9 0
cluding branch line to Hamilton Auckland to Newcastle, recon- struction, 70 miles, includ- ing new line from Hamil-	152		•••		3,256 0 0	3,256 0 0	21 8 5m
ton to Cambridge, 12 miles Mercer to Thames, including four towers for spanning	12		1,393 14 6				44 19 8
Thames and Piako Rivers Second Wire from Napier to Tauranga, 200 miles	36	 793 19 9		1,386 13 10 2,607 9 1	1,492 7 5 880 11 1	5,037 10 1 4,313 16 11	139 18 7 21 11 4n
Tauranga to Kati Kati Kati Kati to Grahamstown Third Wire from Auckland	30 43	1,584 1 3	1,041 3 0	530 5 9 1,461 8 6	1,482 15 3	7,050 4 5	94 11 8 163 19 2
to Mercer, 40 miles Totals, North Island	874	3,137 6 11	1 - ,		$\frac{-}{25,086}$ 4 2		15 9 0 82 18 8 <i>o</i>
Totals, South Island	$\frac{1,261}{2,135}$	3,356 10 9 6,493 17 8			$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\frac{84,725 \ 16}{157,208 \ 19} \ 2$	$\frac{67 \ 3 \ 9i}{73 \ 12 \ 8p}$
Cook Strait Cable, including freight from London and						20.004	
expense of laying Total expenditure (exclusive of lines in progress)				 		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	

Total number of miles of Line, 2,135. Total number of miles of Wire, 3,823. There are fifty miles of line (from Patea to Opunake) included in Maintenance Table which are not shown in this table, the New Plymouth line not being completely finished yet.

a Purchased from Southland Government. b Includes £450, purchase of Lyttelton line. c Approximate cost. d Approximate cost of poles, &c. e Purchased from private firm. f Purchased from Canterbury Government. g Purchased from Otago Government; total cost includes £2,047 18s. 10d. for new material. h 6 per cent. interest guaranteed on this line. i Average cost per mile, South Island. k Includes cost of exploration of three routes: one by Waipukurau and Wanganui; one by Masterton and Wanganui; and one by Wellington and Wanganui (present route). l Supply of poles included in cost of erection. m Of this amount £2,276 was paid to the Imperial Government for purchase of the line; the balance, £980, is the cost of extension from Ngaruawahia to Hamilton, and from Alexandra to Kihi Kihi. n Includes alteration of line and bush clearing; nearly all material packed on horseback. o Average cost per mile, North Island. p Total average cost per mile.

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Table B.

COST Of MAINTENANCE of TELEGRAPH LINES for the Financial Year ended 30th June, 1872.

+ Total average cost per mile. * No cost for maintenance yet incurred. Line opened on 28th May, 1872.

Table C.

INSULATION TESTS of the COOK STRAIT CABLE for the Years ended 30th June, 1868, 1869, 1870, 1871, and 1872, respectively, showing the Resistance per Knot after Two Minutes' Electrification in Millions of Ohmads (British Association Units of Resistance).

No. 3 Wire.	1,444 1,128 1,128 1,079 1,079 981 1,073 938 938 979 1,173
No. 2 Wire.	1:36 1:31 1:31 2:65 9:98 8:29 9:5 9:5 444 49:6
No. 1 Wire.	751 517 641 570 570 579 676 676 676 676 678
Ватв.	1871— July † August 25 September 25 October † November 23 December 28 January 27 February 27 March 31 April 25 May 28
No. 3 Wire.	1,149 1,121 1,312 1,173 1,166 1,008 955 1,288
No. 2 Wire.	10.2 7.7 6.7 12.89 1.28 1.28
No. 1 Wire.	505 480 574 565 565 717 717
ДАТЕ.	1870— November 21 December 21 1871— January 21 February 21 March 23 April 24 May 23 June 24
No. 3 Wire.	865 707 967 619 812 871 622 763 763 1,108
No. 2 Wire.	2 2 3 3 4 4 6 6 6 6 6 6 7 7 7 3 9 3 6 6 6 6 6 6 6 7 7 7 9 9 9 9 9 9 9 9 9 9
No. 1 Wire.	526 442 344 430 430 456 355 517 473 473
ДАТВ.	1870— January 22 February 22 March 18 March 20 April 26 June 26 June 26 June 26 June 21 June 22 August 16 September 17 October 20
No. 3 Wire.	729 748 950 963 11,104 11,200 11,275 11,253 11,159
No. 2 No. 3 Wire. Wire.	26 31 113 113 29 20 20 20 20 20 20 20 20 20 20 20 20 20
No. 1 Wire.	467 483 562 523 523 649 667 754 582 638
ДАТЕ.	1869— March 27 April 19 May 11 May 17 June 22 July 27 September 27 October † November 8 December 3
No. 3 Wire.	554 634 620 667 667 709 1,094 1,000
No. 2 No. 3 Wire. Wire.	71 102 179 32.6 10.6 10.5 5.5 5.5 63.5 63.5
No. 1 Wire.	473 6347 547 558 578 608 930 630 697
Датк.	1867— September 1 September 3 September 14 November 14 November 14 December 2 1868— June 7 * September 11 September 11

* This test was taken with zinc to earth; all the others with copper to earth. + No test taken.

RETURN for the Year ended 30th June, 1872, of the Cash Revenue derived from Private, Press, and Provincial Government Messages, and of the Value of General Government Telegrams; the Number of Messages transmitted by each Station, and the Working Expenses of each Station.

Remarks.	Includes cost of alterations of office, £20. Includes fittings for new office, £31 10s. 8d. Includes alterations to office, £47 19s. 6d. Includes £15s. 11d. £85 15s. 11d. Includes £11 0s. 6d. for office fittings. Includes office fittings, £37.
Total Cost of Maintenance of each Station.	2,188 15 8 8 16 9 9 7 160 13 8 118 6 4 6 9 7 118 6 4 6 9 17 11 118 15 2 11,166 1 1 0 2287 10 9 2287 10 9 2287 10 9 2287 10 9 1751 9 0 11,751 9 0 6 2 17,50 11 0 9 6 9 0 0 0 9 6 9 0 0
Contingencies.	286 1.3 286 1.3 16 2.8 18 6.8 18 6.4 18 15 2.1 18 15 2.2 17 6.0 19 6.8 25 5.2 27 7 2.2 27 7 2.2 27 7 2.2 27 7 2.2 27 11.9 28 6.2 28 15 0.0 28 15 0.0 28 15 0.0 28 15 0.0 28 16 8 8 8 8 8 8 9 7 7 11.0 28 16 8 8 8 8 8 8 9 7 7 11.0 28 16 18 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Amount paid for Salaries.	# S. d. 1,902 14 5 6 133 6 8 105 0 0 10 0 0 16 13 4 289 10 1 223 10 0 200 0 0 200 0 0 200 0 0 200 0 0 1,439 9 11 1,439 9 1 1,439 9 1 1,439 9 1 1,439 9 1 1,439 9 1 1,439 9 1 1,4
Total Number of Messages of all Codes.	 1, 208 1, 105 1, 710 1, 710 86, 434 852 1, 114 852 1, 114 803 803 803 803 803 803 803 803 803 803
Total Number of General Government Messages.	233 445 7416 7416 7416 7416 7416 7416 7416 7416 7417 74
Total Number of Private, Press, and Provincial Government Messages.	975 1,060 929 422 422 422 84,231 2,215 3,938 4,719 3,938 4,4,396 4,4,396 4,4,396 10,346 11,068 8,547 2,008 8,547 2,008 8,547 1,175 1,775 1,603
Value ssages Jodes.	86 19 6 86 19 6 86 19 6 80 8 0 217 16 0 28 19 0 29 73 14 6 410 7 6 489 0 9 62 18 6 93 19 9 78 1 6 40 11 0 290 19 9 2464 14 6 4464 14 6 214 15 6 22 10 13 22 10 13 23 19 9 4464 14 6 60 11 0 25 14 15 6 60 10 12 8 60 10 13 60 11 6 145 2 6 160 1 8 60 1 10 18 60 1 10 18 60 1 10 18 60 1 10 18 60 1 10 18 60 1 10 18 60 1 10 18 60 1 10 18 60 1 10 18
Value of General Government Messages.	2 8 8. d. 149 0 0 149 0 0 12 15 0 0 2 15 0 0 2 15 0 0 2 15 0 0 2 10 6 5 0 0 0 2 10 6 5 0 0 0 2 10 6 5 0 0 0 6 0 0 0 7 12 17 6 10 13 0 12 17 6 12 17 6 12 17 6 13 0 14 15 0 15 0 0 16 0 0 17 17 6 18 0
Total Cash Revenue derived from Private, Press, and Provincial Government Of Messages. Total Government Of Messages.	## 8. d. ## 9. d. ##
ON.	
NAME OF STATION.	Head Office Alsavoa Alsavoa Alexandra, Auckland Arrow Ashburton* Balclutha Balclutha Balloheim Blenleim Bluff Bull's Charleston Charles

																_											,													•						1	Includes rent of ground, £30.	Includes alterations to office,	£50.				-		
78 5 10 35 0 1	0	2 0	10	٠ ۵	1	(1 (φ.	೧೧	Ø	V	H C	N	0	9	0	9 0	0	ㄷ	1	1 0	י כי	2	-	_	7 5	Ξ,	Ψ	دن	_	. 41	<i>-</i>	٠,	۲`	٠,	ñ	-	ř	H	_		•	•	4	_	$\vec{}$	-	_	-		7	٠,	- ¹ 1	93.593 9 9	, .	
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108	304	2,815	668	1,414	10,403	1,177	1,750	1 937	1,50	1,110	475	138	11 135	201,10	4 00 O	15,711	1 283	7,77	770	9,688	1.025	1,964	1001	67)	1,568	2.613	3 372	100	0,000	4,692	2,330	649	1,019	575	3, 128	1,254	1 950	000.0	700,0	1,623	8,280	2,988	1,313	827	1 199	1,546	1,0±0,1	11,439	34,705	14,094	8,580	109	101 111	411,767	
11	:	125	32	25	2.773	602	486	106	961	ဌာ	96	6	1660	4,000	enz	2,487	356	200	76	818	868	106	160	140	112	933	689	9 6	8,472	573	125	430	88	7.6	247	280	-	1,111	2,071	133	948	210	75	84	9 2	021	201	2,450	5,669	10,736	1,202			67,243	
46	304	2,690	827	1.389	7,630	27.2	1 964	±07,1	1,041	1,032	373	961	1	7,113	2,119	13.224	760	126		8.870			8/3	586	1.456	1,680	1,030	2,739	4,206	4,119	2,205	249	931	10,70		1,001	697	899	1,766	1,490	7,332	2,778	1,538	7,000	877	196	1,088	8,989	29,096	3,358	7.378	108		344, 524	
1		906 5 90		- =		11	, (13	87 4 6		7	Τ.	က	184 2 0	_	9	77	4	2	9 6 90	٥ (9			_	248 LZ 9	232 1 6	495 4 9	387 8 0	177 5 9	147 16 6	0 01 74			28/ 18 B		378 16 0	620 0 3	9	75	7	A 4	# C	۰ د			1,129 17 0						39,164 13 9	
7 17 6		19 18 6	0 12	- 10	1 0	20/ 1/ 0	Τ̈́	0 8 44	93 9 0	7 8 0		o or oz	0 4 0	1,012 13 0	6	0 2 17	٥ ,	45 16 6	13 4 0	21 11	- 0	9	85 8 6	30 % 0	۳		135 6 0	46 0 3	213 8 0	51 19 0	į	190 14 6	# G	0 0 0	9	94 14 6	9	908 8	11	12.11 6		7 7 7 7			11	က	37 14 6	70	928 3 3	10	2 =	0 1 0		11,043 3 9	
6	ģ	0 61 07	- (۰ د	۰ م	526 4 6	9	85 12 9	73 4 3	70 16 6	2 6	Z5 10 0	<u>~</u>	631 10 0	150 9 6	1 6		63 16 0	<	2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9 6 119	۲.	17	0	9	0	ဗ	186 1 3	9	20	0 0	0 0 40I	M 3	2	38 18 6	4	ນ	72 8 0	σ.	70	10 TO	9	194 9 0	N	18	72 0 3	19	i =	α	1 770	901 1 9	900 0 000 0 1 000		28,121 10 0	
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77.A 77-A	Agu Agu	Kekerangu*	Lawrence	Leithfield	Longbush	Lyttelton	Maketu			-,	Mataura*	Mercer	Motneka		Total Total	Naseby	Nelson	t.	diameter To	New Flymouth	Oamaru	Onehunga	Oprinate	Оринаме	Otaki*	Palmerston	Patea		Don't Chalman	For Chaimers	Queenstown	Riverton	Rotorua	Roxburgh	Selwyn	Spit	Tarawera*	Тепро	Taulo	Tauranga	Temuka	Timaru	Tokomairiro	Waikouaiti	Waimate	Wainawa	Weinstein	Waipundian	vy anganui	Wellington		Westport	willes bay	Total	

* Operator also Lineman.

Table E.

ORDINARY, PRESS, and PROVINCIAL GOVERNMENT TELEGRAMS despatched during each QUARTER of the Years ended 30th June, 1871 and 1872, respectively, and the Revenue derived from each Class.

1870-71.

ī					1				
			90 G	6			ځد	900 e	0
		Amount.	3. 8. 1. 10 1. 10	22,219 15			Amount.	8. 17 17 38 6 35 6	28, 121 10
	ALS.	Αm	£ 18,432 2,745 1 1,041 1	12,21		Totals.	An	£ 24, 517 2, 568 1,035	28, 12
	Totals.	e <u>i</u>				Тол	lis.		
		o. of gram	231,368 14,731 7,483	253,582			No. of Telegrams.	321,122 15,773 7,629	344, 524
		No. of Telegrams.	23	33			Tele		8
			d. 6 6 0 6	9 \$			9 7.	-300 -300 -000 -000	e 1
	rer,	Revenue Derived.	s 17 23 17 52 16	88		TER,	Revenue Derived.	£ 8. 909 2 727 19 218 19	7,856 1
	ζυλκ. 71.	Be De	£ 5,591 623 252	6,468		ДТАВ 872.	MÃ	£ 6,909 727 218	7,8
	JUNE QUARTER, 1871.	ns.	41.0	 m		JUNE QUARTER, 1872.	f ms.	15 vg	- m
	J.	No. of Telegrams.	70,914 3,767 1,952	76,633		F.	No. of Telegrams.	89,821 5,247 1,645	96,713
		Tel	<u> </u>	<u> </u>			E		ļ
	-r	g-g	8. 6. 4. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	6 6			iue sd.	s. d. 18 6 17 0 7 9	3
	RTER	Revenue Derived.	ŀ	5,906 19		RTE	Revenue Derived.	£ 6,041 1 436 1 278	6,757
	Qua 871.	#A	£ 4,857 803 246	5,0		Qu4 872.	#H	6,6	6,7
	Мавси Quarter, 1871.	f mB.	21.2	1		Мавси QUARTER, 1872.	of tms.	831 28	55
	M.	No. of Telegrams.	60,652 5,141 1,824	67,617		×	No. of Telegrams.	79,581 3,046 2,128	84,755
		<u> </u>		1 8			<u>H</u> 	- io 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9
	EB,	rue ed.	s. d. 8 0 2 6 12 9	က		rer,	nue red.	s. 10 18 7	1
	TART	Revenue Derived.	£ 4,096 759 261	5,117		TAB	Revenue Derived.	£ 5,842 710 267	6,820 15
	December Quarter, 1870.	##	4	بعر	1871–72.	DECEMBER QUARTER, 1871.		بن	6,
	EMTB)	of ams.	29 449 778	56	1281	CEMB	No. of Telegrams.)58 746 385	689
	Dig	No. of Telegrams.	51,629 3,349 1,778	56,756		D	No.	76,058 3,746 1,885	81,689
			- ಕ್ರಣ ೦ ಅ	6				-j.009	0
	TER,	nue ved.	s. 113 115	4		QUARTER,	Revenue Derived.	8. 112 111	01 289
	⊋υΔΒ).	Revenue Derived.	£ \$886 559 280	,727		QUA)	Revenue Derived	£ ,724 692 270	
	Sертемвен Quarter, 1870.		, 6	4,		BER (l ro	9
	TEM	of	48, 173 2, 474 1,929	52,576		September 187	No. of elegrams	75,662 3,734 1,971	81,367
	SC	No. of Telegrams.	& & . t.	52,		20 H	No. of Telegrams.	15. w. t.	81
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			y Te elegn ial G					ry Te lelegn ial G	
			Ordinary Telegrams Press Telegrams Previncial Government Telegrams					Ordinary Telegrams Press Telegrams Provincial Government Telegrams	
			Q Q Q					044	

Table F.

Number of Interprovincial Letters forwarded during the Year ended 31st December, 1871; Number of Telegrams despatched in each Province during the Year ended 30th June, 1872; and proportion of Telegrams to every 100 Letters; together with a similar Return for the previous Year.

				1871–72.			1870-71.	
Prov	INCE.		Number of Letters.	Number of Telegrams.	Proportion of Telegrams sent for every 100 Letters.	Number of Letters.	Number of Telegrams.	Proportion of Telegrams sent for every 100 Letters.
Wellington Marlborough Nelson Canterbury Westland Otago Southland Hawke's Bay Taranaki Auckland			318,497 52,802 161,309 375,467 182,915 644,536 77,866 82,740 34,755 487,134	70,604 12,258 29,921 52,616 26,558 } 114,512 16,638 5,097 83,563	22·16 23·21 18·54 14·01 14·51 15·85 20·10 14·66 17·15	336,375 92,124 185,179 410,938 225,157 578,299 74,536 76,553 28,320 619,466	51,360 10,682 29,111 41,486 25,188 79,117 13,203 14,025 2,490 46,212	15·26 11·59 15·72 10·09 11·18 13·68 17·71 18·32 8·79 7·45
Total Num Total Num Proportion	ber of Te	elegrams		1871- 2,418,0 411,7	2,626,947	1869-70. 2,374,060 185,423 7·81	1868–69. 2,749,488 146,167 6·12	1867-68. 1,938,578 106,104 5.47

Table G.

RETURN of the Number and Amount of Telegraph Money Orders Issued and Paid at the Post Offices in the several Postal Districts in the Colony of New Zealand during the Year ended 30th June, 1872.

						Issue	o .		PAID.
	Postal Dis	STRICTS.			No.	Commission	. Amount.	No.	Amount.
			•			£ s. d	. £ s. d.		£ s. d.
Auckland				,	165	26 9 6		228	1,030 0 0
Thames	•••				61	12 2 6		21	99 2 2
New Plymouth					86	17 6 6	508 13 6	29	186 0 4
Napier					158	28 12 0	800 7 4	53	276 16 9
(37 11'					432	74 10 6	2,086 4 0		2,763 15 5
DI Lain	•••				192	29 2 6	873 12 8	78	311 8 2
NT -7	•••				70	14 8 0	437 0 1	234	1,048 0 4
71 . 1	•••	•••			123	23 4 0	661 4 10	15	85 7 6
077 1 1	•••	•••	•••		111	16 19 6	466 14 0	42	155 3 6
	• • • •	•••	• • • •		188	27 9 6	719 2 0	73	321 19 0
Greymouth Hokitika	•••	•••	•••	•••	108	18 7 6		200	702 4 0
Hokitika Christchurch	•••	•••	•••		339	55 2 (1	459	2,111 16 10
D 11	. • • •	•••	•••	•••	895	143 8 6	1 '	883	4,103 11 4
Dunedin	***	***	•••	•••	108	17 14 6		1	664 3 7
Invercargill	•••	•••	***	•••	100	1, 14			
	TOTALS	***	•••	•••	3,036	504 16	13,936 0 5	3,020	13,859 8 11

Table H.

	KE.	PORT ON	'L'E	LE	W	OΚ	KI	NG	ŧΟ	E,	
COMPARATIVE TABLE showing the Progress of the Telngraph Department during the Financial Years ended 30th June, 1866, 1867, 1868, 1870, 1871, and 1872.		Tariff in Operation.		Mileage tariff.			Mileage tariff in opera- tion up to 1st Sept.,	1869; uniform 2s. 6d. tariff from 1st Sept.,	1869, to 31st March, 1870; and present 1s.	tariff from 1st April, 1870.	
1869, 18	enance Mile.	nisM to teoO req senial to	£ s. d.	3 9 10	3 7 1	4 17 4	9 8 9	8 9 11	5 19 6	23	
1867, 1868,		Total Expenditure.	£ 8. d.	6,377 6 3	10,558 19 6	14,896 5 1	22,813 17 4	30,537 12 2	32,598 7 11	7 32,452 9 4	
JUNE, 1866,	Cost of	Maintenance of Lines.	£ 8. d.	2,443 2 11	2,541 4 11 10,558 19	5,406 7 3 14,896	8,547 4 9	0 29,470 7 4 16,417 7 4 14,120 4 10 30,537 12	11,344 3 8	8,858 19	
ended 30th	Cost of	Maintenance of Stations.	ж 8. ф	3,934 3 4	8,017 14 7	9,489 17 10	1 14,266 12 7	16,417 7 4	21,254 4 3	23,593 9 9	
ancial Years	Total Value	of Business done during the Year.	£ s. d.	6,045 2 4	8 12,840 14 9	3 18,324 3 10	31,951 2 1	29,470 7 4	32,296 6 2	9 39,164 13 9	
ring the Fin	Value	of General Government Messages.	£ 8. d.	483 3 2	3,770 4 8	6,672 0 3	6	4 12,252 6 0	9,876 17 6	က	
eparment du	Revenue derived from Private. Press	and Provincial Government Messages, and Incidental Receipts.	£ 8. d.	5,561 19 2	9,070 10 1	11,652 3 7	18,520 10 4 13,430 11	17,218 1 4	22,419 8 8	28,121 10 0 11,043	
сварн Д	rwarded	Total.		27,237	70,952	98,485	156,157	185,423	312,874	411,767	
of the TELR	Number of Telegrams forwarded during Year.	General Government.		2,476	15,331	26,244	50,097	62,878	59,292	67, 243	
e Progress	Number o	Private, Press, and Provincial Government.		24, 761	55,621	72,241	106,070	122, 545	253,582	344,524	
wing th	Number	of Stations Open.		13	21	31	45	99	72	81	
BLE sho	Number Number	Miles of Stations Line. Open.		669	121	1,110	1,329	1,661	*1,976	+2,185	
COMPABATIVE TA		Year ended.		30th June, 1866	,, 1867	,, ,, 1868	,, 1869	" " 1870	1481 " "	" " 1872	
'											

• From this mileage 78 miles to be deducted before computing the cost per mile for maintenance.

† From this mileage 32 miles to be deducted before computing the cost per mile for maintenance.

Table I.

Cash Value of Shipping Telegrams and Amounts Chargeable to each Department of the General Government, for Telegrams transmitted during the Year ended 30th June, 1872.

DEPARTMENT.	September Quarter, 1871.	December Quarter, 1871.	March Quarter, 1872.	June Quarter, 1872.	Totals.
Colonial Secretary Crown Lands Customs Defence Judicial Marine Native Postal Postal Registrar-General Registrar of Land Treasury Shipping Reports Totals	£ s. d. 284 2 0 11 7 6 49 10 0 540 9 0 169 8 3 10 1 0 376 4 3 220 4 0 352 13 6 40 18 0 13 4 0 140 19 6 191 3 6	£ s. d. 344 14 3 12 10 0 49 4 6 590 15 6 173 3 9 6 4 0 360 4 3 224 11 6 418 8 0 15 8 0 16 7 0 165 18 6 216 0 0	£ s. d. 520 9 6 11 15 0 52 15 0 659 13 3 198 9 6 8 2 0 338 4 3 225 8 6 903 7 3 18 9 0 25 16 6 139 7 9 223 3 0 3,325 0 6	£ s. d. 393 4 6 17 5 0 58 2 0 445 13 0 189 12 0 3 17 6 306 13 0 279 19 0 644 5 6 10 13 0 18 1 0 144 4 0 213 0 0	£ s. d. 1,542 10 3 52 17 6 209 11 6 2,236 10 9 730 13 6 28 4 6 1,381 5 9 950 3 0 2,318 14 3 85 8 0 73 8 6 590 9 9 843 6 6

Table K.
Debtor and Creditor Statement.

	1		<u> </u>				I	<u> </u>					
Dr.	£	s.	d.	£	8.	d.	Cr.	£	8.	d.	£	s.	d.
To total cost of maintenance	1						By Cash Receipts as under,			- 1			
	23,593	9	9				viz.:	}		- 1			
To total cost of maintenance	0.050	10					Ordinary, Press, and Pro-			[
of Lines	8,858	19	. 4				vincial Government Tele- grams*	28,121	10	0			
To refunds to Press, 25 per cent. on value of Interpro-							grams* Incidental Receipts, not in-	20,121	10	Ĭ			
vincial Telegrams	312	9	ol				cluded in Tables, viz. :	İ					
Total Disbursements				32,764	18	4	Profit on San Francisco	ļ		1			
			- {	, ,			Telegrams	18	5	4	i		
	1						Excess on Ordinary Tele-						
	İ						grams	25	16	2			
							Deficit between Receipts	ļ		- 1			
							and Expenditure paid by Guarantors of Longbush						
			ļ				Station for Year ending				,		
•	Ì						December, 1871	18	17	3			
							Amount collected by Post	1		1			
	1						Office for Telegraph De-	ł					
	1						partment on Money						
	1						Order Telegrams	151	16	0			
	1						m.i.g.l.B	00 226	4	_			
To balance to the credit of	1			6,614	10		Total Cash Receipts Value of General Govern-	20,330	,46	9			
the Department		•		0,614	70	z	ment Telegrams	11,043	3	9			
	1			£39,379	8	6	monv relegiants			_	£39,379	8	6
					Ŭ	Ü	1	1		- 1	,-,-		

^{*} Of this amount, £228 4s. 9d. was collected in Stamps.