

## NEW SOUTH WALES.

## ELECTRIC TELEGRAPHS.

(REPORT FROM SUPERINTENDENT.)

Presented to both Houses of Parliament, by Command.

*REPORT of the Superintendent of Electric Telegraphs, on the progress and general condition of Electric Telegraphs in New South Wales, for the years 1863 and 1864.*

*Department of Public Works.*

*Electric Telegraph Branch,*

*Office of Superintendent,*

*Sydney, 18 February, 1865.*

SIR,

I have the honor to forward, for the information of the Honorable the Secretary for Public Works, a Report shewing the progress and financial condition of the Electric Telegraph Department to the end of the year 1864.

## EXTENSIONS COMPLETED.

The extension of the Western line from Orange to Forbes, Young, and Wagga Wagga, was completed and handed over to the Government, May the 5th, 1863, and has since worked satisfactorily—having proved a valuable addition to the Southern inter-colonial lines—and has reduced the interruptions between Sydney and Victoria to a minimum, in all only amounting to six hours during the year 1864.

From Deniliquin to Hay, eighty-one and a half miles; contract price, £43 per mile, and £15 per mile for wire on existing posts from Deniliquin to Conago, a distance of twenty miles; total cost, £3,367 2s. 10d. The station at Hay was opened, 7th May, 1864.

From Braidwood to Queanbeyan, thirty-six and a half miles; contract price, £37 per mile; total cost, £1,991 6s. 10d. Queanbeyan station opened, 13th August, 1864.

From Wellington to Dubbo, thirty and a half miles; contract price, £41 10s. per mile; total cost, £1,471 10s. 9d. Dubbo station opened, 12th November, 1864.

The additional wire between Sydney and Newcastle was completed and opened 1st January, 1864; since which, the receipts at the principal stations on the Northern Line have considerably increased.

The extension from Braidwood to Araluen, fifteen and a half miles, contract price £34 per mile, is completed, and will be opened in a few days.

## LINES IN PROGRESS.

The line from Murrurundi to Mudgee, 130 miles, the contract price for which was accepted at £37 per mile, is rapidly progressing, and will be completed about the end of February, 1865. This very necessary work will connect the northern with the western circuits, and insure more regular communication with the northern stations in this Colony and those in Queensland.

A contract has also been entered into for a line from Queanbeyan to Cooma, a distance of seventy miles, at £37 15s. per mile, to be completed in four months.

The South Australian Government having, after considerable delay, at length agreed to the division of receipts originally proposed by me, viz., two-thirds to accrue to New South Wales, and one-third to South Australia, on telegrams between Sydney and Adelaide, a contract has been entered into for the construction of the direct line from Deniliquin to our western boundary, at £36 10s. per mile, to be completed in eight months, by which time the South Australian section will also be ready.

When in operation, this line will relieve the Victorian lines of the whole of the business between New South Wales and South Australia, and will greatly facilitate the transmission of messages between the two latter Colonies, as one repetition only will be necessary, instead of three as at present. I have every reason to believe that there will also be a tolerable and increasing business with the several stations on the Edward and Murray Rivers; but in the mean time, the annual amount now paid to Victoria for business which this line will take, will almost cover the working expenses of the new stations, independent of their own receipts.

#### PROPOSED EXTENSIONS.

The Select Committee of the Legislative Council on Light-houses, in 1863, recommended that lines of Electric Telegraph should be extended to the several light-houses along the coast of the Colony. With a view to the accomplishment of so desirable an object, it will be necessary to carry the present lines to the nearest convenient townships, where permanent telegraph stations, worked on the Morse system, should be established, and from which points the light-house lines might branch; for which latter, alphabetical instruments, for the sake of economy and easy manipulation, should be used.

To connect the Gabo Island light, a line from Cooma to Eden, a distance of eighty miles, *via* Merrimbula and Panbula, would be required; the estimated cost of which would be £3,750, thence to Gabo Island, thirty-five miles, about £2,000.

The Jervis Bay light could be connected by extending the present line from Kiama to Shoalhaven, with an alphabetical line from Shoalhaven to the light; the distance would be about forty miles, and the cost about £2,000.

Port Stephens light could be reached from Newcastle, at a cost of about £1,500.

The above lines would prove of the utmost value in cases of shipwreck, or vessels in distress; also, for the purpose of transmitting warning signals during severe gales or storms, and more particularly in the event of war, when immediate information could be transmitted throughout the Colonies on the approach of an enemy's vessels.

A line from Bathurst or Orange to Carcoar and Cowra might be carried out, and prove a great boon to the inhabitants of that district. I also feel satisfied that, if the residents in the neighbourhoods interested would give the usual guarantee, the sum to be made up in order to indemnify the Government would be but trifling to commence with, and in a short time would cease altogether.

#### GUARANTEED LINES.

The lines guaranteed by individuals against loss to the Government have so far proved a success, and there is little doubt that, in a short time, they will cease in any degree to be a burthen on those whose public spirit induced them to become responsible. The following table will shew the amounts required to cover the loss in the case of each guaranteed line:—

Wellington to Dubbo line	...	...	...	£19	16	6
Deniliquin to Hay line	...	...	...	20	4	2
Braidwood to Queanbeyan	...	...	...	2	6	1
				<hr/>		
				£42		
				<hr/>		
				6		
				9		

## BRANCH LINES FOR PRIVATE FIRMS.

No additional lines have been erected for private firms or companies, to connect the nearest line stations with business establishments, since 1862, although several applications have been received; it having been considered necessary to amend the Telegraph Act, in order to empower the Government to undertake such works—which amendment it is proposed to submit to Parliament during the present session—when there is every reason to believe the public will avail themselves of the facilities for communicating between their several places of business and the nearest Government Telegraph Office. The Coal Companies near Newcastle and in Illawarra will derive important advantages from the connection of their collieries with their principal offices, which will be effected on the payment of a small annual rental.

## CONDITION OF THE LINES.

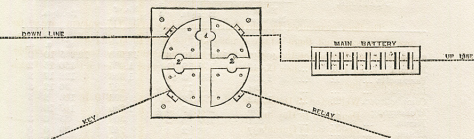
The Southern Lines have worked very satisfactorily since 1862. The Main Southern Lines have been put in thorough repair, a gang of men having travelled through from Sydney, and are now at work in the neighbourhood of Gundagai. Considering that these lines have been nearly seven years in operation, the repairs required have been trifling, beyond the clearing of overgrown scrub.

On the Western Line, between Penrith and Hartley, considerable damage has been done by the railway works; with this exception, the Western Lines have required nothing beyond the ordinary repairs.

The Northern Line, since the alterations on the southern portion, has not been so troublesome, the interruptions between Sydney and Queensland having been less frequent. On the completion of the Junction Line between Mudgee and Murrumbidgee, the public will seldom feel the inconvenience of delay, as there will not be more than 275 miles to the Queensland Boundary which will not be duplicated by a separate route.

The several branch lines are in good working order, and have seldom required more than the line-men have been able to manage in keeping them in repair, except the Grafton Branch, which has been washed away by the Upper Clarence at Tabulam, necessitating the removal of the line to a less dangerous crossing-place.

The lines in this Colony during the summer months appear to be much more affected by lightning than those in the neighbouring Colonies; and it frequently occurs that not only the lightning conductors, but the relay coils, are fused by the intensity of the atmospheric charges. To guard against this wholesale destruction, I have arranged a simple cutting-out switch, which completely disconnects the conductors and instruments from the line, leaving only the main battery in circuit. This plan has been found to work very satisfactorily, and has saved the destruction of many instruments, and the consequent delay of business at the several stations so visited. The following is a sketch of the cutting-out switch:—



When the station is cut out and the line switched through, a plug is inserted at 1: when the instrument is in circuit, plug 1 is removed, and two plugs inserted at 2' 2'.

#### LENGTH OF LINES AT PRESENT IN WORK.

	Number of Miles of Line.	Number of Miles of Wire.
<b>SOUTHERN LINES.</b>		
Sydney to Albury	365	730
Do. to Kiama...	94	94
Do. to South Head	7	7
Do. to Picton...	53	53
Goulburn to Braidwood	54	54
Gundagai to Kiandra	99	99
Do. to Moama	271	271
Braidwood to Queanbeyan	36	36
Do. to Araluen	16	16
Deniliquin to Hay	81	81
<b>WESTERN LINES.</b>		
Sydney to Penrith	34	34
Do. to Wagga Wagga	387	387
Bathurst to Wellington	146	146
Wellington to Dubbo	30	30
Mudgee to Murrurundi	130	130
<b>NORTHERN LINES.</b>		
Sydney to Queensland Boundary	517	679
Maitland to Newcastle	20	20
Do. to Morpeth	4	4
Newcastle to Singleton	48	48
Muswellbrook to Scone	16	16
Tenterfield to Grafton	112	112
	2,520	3,047

Making a total of 2,520 miles of line, and 3,047 miles of wire, which, on the completion of the lines in progress, will be increased to 2,990 miles of line, and 3,517 miles of wire.

#### RECEIPTS AND EXPENDITURE.

The receipts still shew a fair profit, although several branch lines have been constructed which, at present, do not return sufficient to cover their working expenses; but as the trade and importance of the districts which they connect with the main lines are undergoing a steady development, the lines in question are becoming remunerative.

The effects of the failure of crops, disastrous floods, and general depression of business during the last two years, are perceptible in this as well as in other branches of the public revenue.

TABLE shewing number of Messages and Receipts in 1863 and 1864.

STATIONS.	1863.			1864.		
	No. of Messages.	Receipts.		No. of Messages.	Receipts.	
		£	s. d.		£	s. d.
Sydney	40,743	13,215	12 9	43,980	13,865	10 9
Redfern	1,345	179	19 11	1,065	150	15 2
Parramatta	1,798	179	3 10	1,386	128	17 2
Liverpool	434	58	18 5	297	36	12 2
Campbelltown	1,242	175	3 2	803	103	2 5
Wollongong	1,289	206	7 3	1,230	187	10 8
Kiama	621	107	8 2	509	85	6 3
Picton	627	88	2 8	747	89	6 0
Berrima	511	85	12 0	440	75	12 7
Goulburn	2,742	757	7 7	2,521	646	6 11
Braidwood	1,209	380	2 7	1,487	445	5 1
Yass	1,901	474	6 9	1,690	448	5 0
Gundagai	1,032	234	11 10	1,266	343	11 5
Kyamba	80	17	17 11	199	43	1 8



## Messages and Receipts—continued.

STATIONS.	1863.			1864.		
	No. of Messages.	Receipts.		No. of Messages.	Receipts.	
		£	s. d.		£	s. d.
Albury ... ..	15,826	540	17 8	18,030	590	3 11
Tumut ... ..	900	274	11 9	874	234	12 0
Kiandra ... ..	266	88	9 2	305	105	7 9
Wagga Wagga ... ..	1,514	434	18 8	1,924	582	17 4
Urana ... ..	490	192	17 6	422	132	10 11
Deniliquin ... ..	1,923	755	13 11	2,346	860	19 2
South Head... ..	237	14	7 0	180	8	19 3
Penrith ... ..	1,480	203	13 7	1,350	184	15 3
Hartley ... ..	509	88	12 1	425	79	0 1
Bathurst ... ..	5,461	1,537	11 8	4,162	949	11 9
Orange ... ..	1,610	353	18 8	1,619	376	14 10
Forbes ... ..	3,850	1,124	1 4	1,840	563	0 5
Young ... ..	2,077	846	0 11	1,665	570	7 5
Sofala ... ..	936	158	2 10	640	103	6 9
Tambaroora... ..	1,087	207	17 6	939	193	7 3
Windeyer ... ..	409	96	0 8	298	65	5 4
Mudgee ... ..	2,770	771	0 0	2,261	552	18 10
Wellington ... ..	733	196	0 6	759	200	6 10
Windsor ... ..	1,107	202	19 4	976	137	17 5
Wollombi ... ..	115	23	2 1	117	20	14 5
Maitland ... ..	5,008	1,174	19 0	5,823	1,282	15 1
Morpeth ... ..	1,390	252	15 0	1,327	216	13 7
Newcastle ... ..	4,600	1,084	4 7	6,685	1,657	1 11
Singleton ... ..	1,940	360	2 6	1,976	344	5 3
Muswellbrook ... ..	1,010	170	4 10	1,158	178	19 8
Scone ... ..	443	84	2 5	386	74	10 3
Murrurundi... ..	875	261	16 11	695	173	0 1
Tamworth ... ..	1,054	287	10 6	842	235	13 10
Bendemeer ... ..	298	61	3 7	471	117	0 2
Armidale ... ..	3,300	459	16 3	1,509	397	18 8
Glen Innes ... ..	459	113	15 7	555	135	9 5
Tenterfield ... ..	4,197	301	3 9	7,554	278	14 11
Grafton ... ..	1,132	320	2 5	1,089	292	10 8
East Maitland ... ..	58	12	9 4	431	93	7 1
Hay ... ..				669	245	17 1
Queanbeyan ... ..				353	95	17 10
Moama ... ..				103	20	11 2
Dubbo ... ..				122	27	14 0
Rent of Bellambi Branch Line ... ..		12	10 0		12	10 0
Balances due from other Colonies on business ... ..		370	11 8		593	10 9
Due on Guaranteed Lines...					42	6 9
	124,638	29,599	0 0	130,500	29,678	8 4

## RESULTS of Year ending 31 December, 1863.

Total cost of construction to 31st December, 1863, (not including Expenditure by Colonial Architect)	£	s.	d.	£	s.	d.
Half-salaries of Superintendent and Accountant, chargeable to construction				118,440	12	2
				500	0	0
				118,940	12	2
Revenue collected during the year 1863, viz. :—						
Value of Messages transmitted	29,215	18	4			
Rent, Bellambi Line	12	10	0			
Intercolonial Balances	370	11	8			
				29,599	0	0
Less—working expenses				20,449	3	9
Net profit, 7½ per cent.	£			9,149	16	3

## RESULT of Year ending 31st December, 1864.

		£	s.	d.
Total Cost of Lines in operation on 31st December, 1864, not including Expenditure by Colonial Architect ... ..		132,025	18	3
		£	s.	d.
Revenue collected during 1864 ... ..		29,623	11	7
Contract for Bellambi Line ... ..		12	10	0
Balances of 5 per cent. Guarantees on conditional Lines, viz.:—				
Dubbo ... ..	19 16 6			
Hay ... ..	20 4 2			
Queanbeyan ... ..	2 6 1			
		42	6	9
		29,678	8	4
Working Expenses, same period ... ..		22,085	1	7
Net Revenue ... ..		£ 7,593	6	9

Being net profit on cost of construction of 6 per cent. per annum.

NOTE.—There was a considerable diminution in the number and value of Government messages transmitted, but an increase in private business, during the year.

It has been frequently asserted that the present rates of charge for telegrams are too high, and that a reduction would induce an increase of business and revenue. It is natural, of course, that those who are interested in obtaining a reduction should advocate a lower charge; but, as I have shewn in a previous Report, there is nothing to warrant the assumption that the result would justify the anticipation. In further support of my opinion, I may here quote the fact that, induced by the force of competition, the English Companies reduced their scale of charges to a minimum, in the belief that they would thereby increase their receipts; but although they have the advantage of a large population to operate upon, the dividends of the leading Companies have, in consequence, been reduced from  $12\frac{1}{2}$  to  $7\frac{1}{2}$  per cent., and some Companies now pay no dividend at all.

In proportion to the population, the lines in this Colony contrast well with those in more populous countries; and it is a self-evident fact, confirmed by experience, that it is impossible to force a telegraph business where the population is limited, and where their business transactions are not of an urgent nature. Reductions have been made in their tariff by a neighbouring Colony, which resulted in considerable loss of revenue; and I feel assured it would prove suicidal to the best interests of the department, if a similar step were at present adopted here.

COMPARATIVE Table, shewing the number of Telegrams transmitted by the following Countries, in proportion to their Population; also, the number of Stations, and average number of Messages from each.

Countries.	Population.	Telegrams per Annum.	Telegrams in proportion to Population.	Length of Wire.	Number of Stations.	Average Messages per Station.
United Kingdom .....	36,000,000	*3,000,000	1 to every 12	53,000	1,375	2,182
France .....	38,000,000	*2,500,000	1 „ 15	64,300	1,301	1,921
New South Wales .....	379,000	130,500	1 „ 3	3,047	52	2,384

\* Including foreign and continental messages.

It will be seen by the above table, that in New South Wales one message is sent by every three persons, whereas in England and France it is one to twelve, and one to fifteen, respectively. The average number of messages from each station in this Colony is also greater than in either of the kingdoms above mentioned.

It has been sometimes urged that the Telegraph Service should be more immediately connected with the Post Office. This I consider quite unnecessary, and has been tried in Europe and failed. In France, Russia, Prussia, Austria, Spain, Belgium, and Switzerland, the Telegraph and Postal Services are under the respective Governments, but are in no way connected.

In Spain and France the telegraphs are under the Minister for the Interior. In Russia, Prussia, Italy, Belgium, and Switzerland, they are under the Minister for Public Works. In Austria the Administrations of the Telegraphs and Post Office were for a time united, but it was found expedient to separate them.

A great deal of jealousy has already shewn itself in this Colony, through the Country Post Offices forming portions of the telegraph buildings; and claims have actually been made by the Country Postmasters to an equal share of the stations, which, if complied with, would have been clearly unjust to the officers of this department, as not only is the major part of the cost of erection defrayed by the Telegraph Service, but the accommodation supplied (four rooms only) is calculated as part of the Station Master's salary.

I see no objection to the same number of rooms being provided for the Postmasters on the telegraph allotments, and would recommend that a sum be placed on the Estimates for that purpose, as I feel convinced that disagreements of a serious nature will occur as long as the same buildings are used by both departments.

### LINES IN OTHER COLONIES.

Through the courtesy of Mr. M'Gowan, the General Superintendent of Telegraphs in Victoria, who has kindly supplied me with the following information, I am able to shew the progress of the Telegraph Department in that Colony, to the end of 1864.

The following new Offices have been opened for business in Victoria:—

Swan Hill .....14 April, 1863.	Castlemaine Railway 23 July, 1863.
Smythesdale .....18 June, 1863.	Kerang..... 6 Aug., 1863.
Moonambal .....25 June, 1863.	Colac.....27 Aug., 1863.
Ballarat Railway.. 13 July, 1863.	Camperdown ..... 6 Oct., 1863.
Sandhurst Railway 22 July, 1863.	Newstead .....29 Oct., 1863.
Red Bank.....22 Dec., 1863.	Mortlake .....17 June, 1864.
Sale .....22 Sept., 1864.	Port Albert ..... 1 Dec., 1864.
St. Armand.....21 Jan., 1865.	

### LINES IN PROGRESS.

A line is being carried from Hamilton to Casterton, from which place it is, I believe, intended to extend the line to the South Australian boundary, to join the lines in that Colony, which will form another loop-line which will be available in the event of interruptions.

Another line is in progress, from Benalla, on the North-eastern Line, to Wood's Point—a new gold field in the north of Gipps Land.

A Statement of Receipts, Expenditure, and number of Messages, for the years 1863 and 1864, is shewn, page 10.

### IN SOUTH AUSTRALIA.

From Mr. Todd's voluminous and valuable Report for 1863, I find that the following Extensions were completed during the year:—From Kadina to Wallaroo, rather more than seven miles, opened, 23rd March,—total cost, £416 13s. 7d.; from Penola to Kincaig, 31 miles,—costing £1,496 11s. 5d.; Kincaig was opened on the 20th July; a station was also opened at Wellington, on 17th March; Riverton was opened in March, and Halendorf in April, 1864.

Mr. Todd appears to be unable to procure suitable timber in South Australia for durable telegraph poles, and recommends that the lines which require repairs should be re-poled

re-poled with Swan River mahogany, as the local timber will not last, on an average, more than six or seven years in the ground. Contracts, I have since been informed, have been accepted for this purpose, at 17s. 10d. per pole 23 feet long.

The long-talked-of direct line between South Australia and New South Wales is at last fairly started; and the first section, between Gawler Town and Blanch Town, on the Murray, is under construction. From Blanch Town to the boundary it is intended to carry the line direct to Overland Corner, where it will cross the river; the high cliffs on one side being made available to give sufficient elevation to the wire, so as not to interfere with the traffic on the river during floods. The length of line from Gawler Town to the boundary near the Salt Creek, will be about 160 miles.

The receipts on the South Australian lines shew a steady increase, which can be referred to at page 10.

#### IN QUEENSLAND.

The lines in operation previous to 1863 were from Brisbane to the New South Wales boundary at Maryland, a distance of 157 miles; also, a short line to Lytton, near the mouth of the Brisbane River; since which date, the following extensions have been added:—

Brisbane to Cape Moreton, 89½ miles; opened, August 2nd, 1864.

Dalby to Rockhampton, 455½ miles; opened, January 5th, 1865.

Rockhampton to Gladstone, 90 miles; opened, January 14th, 1865.

Total number of miles, 792.

#### LINES IN PROGRESS.

Broad Sound to Port Denison.—A branch line to Clermont, and a line from Hawkwood to Taroom.

I have not been favoured with any information respecting the receipts and expenditure of the lines in the above Colony, so am unable to give a detailed account, but I believe they about cover their working expenses.

#### IN NEW ZEALAND.

I have been favoured with a report from the Telegraph Engineer in this Colony, from which it appears that the Southland Provincial Government have erected a line from the Bluff to Invercargill; which line, it is recommended, should be purchased by the General Government, to form a portion of their Main Trunk Line.

From Invercargill to the Mataura River, the whole of the posts have been erected.

From Mataura to Molyneux the contractor is busily engaged erecting poles; and between the latter place and Dunedin, the posts have been erected under a contract entered into with Mr. James M'Kenzie, by the Otago Provincial Government, which is now to be transferred to the General Government.

From Dunedin to Waitaki the posts have been erected under contracts entered into with the Otago Provincial Government; but some difficulty appears to have arisen which necessitated the transfer of nearly the whole of the poles, which had been erected in the midst of bush, and so mixed up with the poles of the private line of Telegraphs to Port Chalmers, as to render the working of either line a matter of impossibility.

Waitaki and Timaru. Posts have been deposited at points marked out by telegraph surveyor.

Timaru to Christchurch.—Most of the posts for this section have been laid along the line, and are ready for erection.

The section between Christchurch and Nelson does not appear at present to be in a very forward state, but the whole of the contracts have been let for the supply and delivery of the poles.

The distances are not enumerated in the report, and at present I am unable to state the total length of the lines in this island.

From Auckland I have little or no information, beyond the fact that there exists a military telegraph from Auckland to Drury, a distance of about forty miles.



## LIST OF STATIONS IN EACH COLONY.

## NEW SOUTH WALES.

Sydney.	Tamut.	Wellington.	Araluen.
Redfern.	Kiandra.	Morpeth.	Moama.
Parramatta.	Wagga Wagga.	Newcastle.	Hay.
Liverpool.	Urana.	Singleton.	South Head.
Campbelltown.	Deniliquin.	Muswellbrook.	Penrith.
Wollongong.	Hartley.	Scone.	Dubbo.
Kiama.	Bathurst.	Murrurundi.	Windsor.
Pieton.	Orange.	Tamworth.	Wollombi.
Berrima.	Forbes.	Bendemeer.	Maitland.
Yass.	Young.	Armidale.	Glen Innes.
Gundagai.	Sofala.	Goulburn.	Tenterfield.
Kyamba.	Tambaroora.	Braidwood.	Grafton.
Albury.	Mudgee.	Queanbeyan.	East Maitland.

Length of line—3,047 miles.

## VICTORIA.

Melbourne.	Beaufort.	Inglewood.	Footscray.
Williamstown.	Streatham.	Kerang.	Mortlake.
Geelong.	Hexham.	Swan Hill.	Chiltern.
Queenscliff.	Otway.	Gisborne.	Woodend.
Point Lonsdale.	Creswick.	Kyneton.	Taradale.
Sandridge.	Daylesford.	Castlemaine.	Werribee.
Schnapper Point.	Maldon.	Sandhurst.	Buninyong.
Cape Schanck.	Dunolly.	Echuca.	Hamilton.
Portland.	Carisbrook.	Kilmore.	Smythesdale.
Belfast.	Maryborough.	Longwood.	Ararat.
Warnambool.	Avoca.	Benalla.	Stawell.
Camperdown.	Moonambel.	Wangaratta.	Talbot.
Colac.	Red Bank.	Beechworth.	Heathcote.
Port Albert.	Clunes.	Yackandah.	Newstead.
Ballarat.	Wahgunyah.	Rutherglen.	Sale.
St. Arnaud.	Tarangulla.	Belvoir.	

Length of line—2,826½ miles.

## SOUTH AUSTRALIA.

Adelaide.	Gawlerstown.	Mount Barker.	Guichen Bay.
Bowden.	Roseworthy.	Nairne.	Mount Gambier.
Alberton.	Freeling.	Woodside.	Penola.
Port Adelaide.	Kapunda.	Strathalbyn.	M'Donnell Bay.
Peninsula.	Clare.	Willunga.	Kadina.
Dry Creek.	Burra.	Port Elliott.	Wallaroo.
Salisbury.	Gumaracka.	Yankalilla.	Auburn.
Smithfield.	Glenelg.	Goolwa.	Wellington.
Hahndorf.	M'Grath's Flat.	Kincraigs.	Riverton.

Length of line—1,074 miles.

## QUEENSLAND.

Brisbane.	Durah.	Rockhampton.	Moreton Island.
Lytton.	Maryborough.	Towoomba.	Banana.
Dunwick.	Hawkwood.	Warwick.	
Ipswich.	Dalby.	Gladstone.	

Length of line—792 miles.

COMPARATIVE STATEMENT of Receipts and Expenditure in New South Wales, Victoria, and South Australia.  
1863.

NEW SOUTH WALES.			VICTORIA.			SOUTH AUSTRALIA.		
CAPITAL—£118,949 12s. 3d.			CAPITAL—£222,846 5s. 11d.					
Messages, 124,638.	Cash receipts .....	£ s. d. 29,509 0 0	Messages, 156,482.*	Cash receipts*.....	£ s. d. 25,703 15 8	Messages, 86,411.	Cash receipts .....	£ s. d. 8,429 19 1
	Working expenses	20,449 3 9		Working expenses	35,645 11 9		Working expenses	9,708 0 8
	Net revenue .....	9,149 16 3		Net loss .....	9,876 16 1		Net loss.....	678 1 7

1864.

NEW SOUTH WALES.			VICTORIA.			SOUTH AUSTRALIA.		
CAPITAL—£132,025 18s. 3d.			CAPITAL—£238,696 5s. 11d.					
Messages, 139,500.	Cash receipts .....	£ s. d. 29,678 8 4	Messages, 184,441.*	Cash receipts*.....	£ s. d. 29,121 18 1	Messages, 106,874.	Cash receipts .....	£ s. d. 10,994 13 8
	Working expenses	22,608 1 7		Working expenses	35,978 6 3		Working expenses	9,560 0 0
	Net revenue .....	7,593 6 9		Net loss .....	6,856 8 2		Net revenue .....	1,494 13 8

\* Exclusive of O.H.M.S. business, which is not paid for in Victoria.

## THE ANGLO-AUSTRALIAN TELEGRAPH.

Since my last report on the Anglo-Australian Telegraph, in March, 1863, nothing of a definite character has been done towards the realization of this important object. The lines are gradually stretching down from the northward towards India, and appearances warrant the assumption that, with so many Imperial interests urging on the undertaking, they will soon be extended to Singapore, on their way to China and these countries respectively. Arrangements made by the Dutch Government, leave no doubt that the continuation from Singapore to Batavia will be a matter of early accomplishment. From Java to this continent, the extension of the line may be said to be the special business of those Colonies which, by geographical position, are immediately interested in this great question.

With the view of connecting the Indo-Australian cable, the Queensland lines are now steadily extending northward; and that Government, I have no doubt, will at once complete their system to the Gulf of Carpentaria; more particularly, should the South Australian Government agree to carry on the work from thence to their northern settlement at Adams Bay, Adelaide River, which would be of the greatest importance to the latter Colony.

The Queensland lines are now open as far north as Rockhampton, and are in progress of construction from thence to Port Denison, so that considerably less than 700 miles of line would place the head of the Gulf of Carpentaria in communication with the rest of Australia, leaving about 800 miles, which would cost perhaps £50,000, to be provided for by the South Australian Government, in which line they would have a double interest. The question, therefore, becomes reduced to that of the sub-marine cable from Adams Bay to Java; and as this point is one which involves no risk, either as to the security of the cable or the remunerativeness of the outlay, I would strongly recommend that (even should the South Australian Government decline to form their land portion of the line to Adams Bay, and thus shut itself out from a participation in the extension) this Colony should join with Queensland in assuming the whole interest in the construction of the line from the Albert River to its connection with the Dutch portion.

Even if formed by a Company, it will be recollected that a subsidy must be guaranteed, representing a certain return on the outlay for the line, while experience warrants the assertion that the undertaking would yield a magnificent return, which has hitherto been the case with all main trunk lines, so much so, that I have no doubt there would be little or no difficulty in obtaining contractors who would manufacture and lay the cable, and undertake the working, for a fixed annual subsidy, in the same manner as Messrs. Glass and Company are working and maintaining the Malta and Alexandria line.

Should

Should the proposition be entertained, that the three Colonies most interested at once enter into preliminary arrangements for starting the project, it will be borne in mind that not only will a large profit accrue from the sub-marine portion, but that an increased business will also be necessarily thrown upon the existing lines, which business will prove an indirect source of revenue of no small magnitude, as the proposed line will form the sole telegraphic channel of communication between Australia and nearly the whole of the World.

The Persian Gulf cable has proved a success; and it is now time for active measures to be taken, to secure to these Colonies one of the greatest boons which mankind possess, which can be accomplished without serious risk or outlay; as I am satisfied that a subsidy, after the first year, would not be required, and that the entire scheme would be self-supporting.

There is one other matter which should not be passed over, that is, the immense saving which would be effected in freights and insurance by manufacturing the cable in Australia. Instead of steam-vessels being required, provided with tanks and other expensive fittings, for the bringing out and protection of so delicate a freight, the whole of the material could be shipped in its unmanufactured state at ordinary rates in England. Of course, in such case, experienced engineers and artisans would be required, who could be sent from Europe with the material. The difference in the expense saved by these means would be at least 20 per cent. on the entire contract.

It may be urged that steam-vessels fitted up with water-tight tanks will be required, and must be brought out from England, to lay the cable: this is quite unnecessary, as there would not be the slightest difficulty in procuring suitable vessels for the purpose in this country, at a far less expense; the time occupied in coming out and returning home being saved. The tanks, paying-out machinery, and all the necessary fittings, could also be put on board in the Colony, at a very trifling additional cost.

I am still of opinion that the only satisfactory mode of initiating the preliminaries for carrying out this undertaking would, as previously recommended by me, be by a meeting of representatives from the several Colonies interested, to take place in Sydney or some other convenient place, to fully discuss the subject and bring up a joint report, recommending the best route, and the most economical plan, for the accomplishment of so desirable an object as the completion of an unbroken line of Telegraph between England and Australia.

E. C. CRACKNELL,

Superintendent of Telegraphs.

#### APPENDIX,

Shewing the capital invested, number of messages and receipts, from the opening of the first lines in New South Wales, in 1858, to the end of the year 1864.

		1858.				£ s. d.		
		Capital invested—£17,253 12s. 11d.						
No. of messages—9,141.	Cash receipts .. ..	..	..	..	..	1,332	19	9
	Working expenses .. ..	..	..	..	..	2,087	8	6
	Net loss .. ..	..	..	..	..	154	18	9
	Number of stations—11.							
		1859.						
		Capital—£23,816 19s. 9d.						
No. of messages—36,867.	Cash receipts .. ..	..	..	..	..	7,826	0	10
	Working expenses .. ..	..	..	..	..	4,646	9	9
	Net profit .. ..	..	..	..	..	3,179	10	1
	Number of stations—12.							
		1860.						
		Capital—£48,454 2s. 2d.						
No. of messages—53,951.	Cash receipts .. ..	..	..	..	..	12,136	13	2
	Working expenses .. ..	..	..	..	..	9,406	12	4
	Net profit .. ..	..	..	..	..	2,728	0	10
	Number of stations—23.							

1861.

No. of messages—74,224.	Capital—£60,615 13s. 3d.				£	s.	d.
	Cash receipts .. ..	..	..	..	16,542	8	9
	Working expenses .. ..	..	..	..	12,915	15	4
	Net profit .. ..	..	..	..	3,626	13	5
	Number of stations—36.						

1862.

No. of messages—104,660.	Capital invested—£116,234 11s. 7d.						
	Cash receipts .. ..	..	..	..	25,513	9	8
	Working expenses .. ..	..	..	..	16,780	7	5
	Net profit .. ..	..	..	..	8,733	2	3
	Number of stations—47.						

1863.

No. of messages—124,638.	Capital invested—£118,940 12s. 2d.						
	Cash receipts .. ..	..	..	..	29,599	0	0
	Working expenses .. ..	..	..	..	20,449	3	9
	Net profit .. ..	..	..	..	9,149	16	3
	Number of stations—48.						

1864.

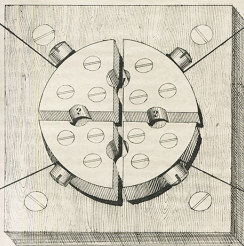
No. of messages—130,500.	Capital invested—£132,025 18s. 3d.						
	Cash receipts .. ..	..	..	..	29,678	8	4
	Working expenses .. ..	..	..	..	22,085	1	7
	Net profit .. ..	..	..	..	7,593	6	9
	Number of stations—51.						



# Cutting out Switch

*Up Line*

*Down Line*



*Key*

*Relay*

*Lithographed at the Surveyor General's Office Sydney Oct 1865*



*Plug*