Public Works (1899) Department.

RAILWAY BRANCH.

G.O., No. 797 Ry.

DATED 21st July

Includes.
G.O. No. 1105 Ry. 31st Dec. 98
No. 179 R. no. 27-4-99

[Despatch Abstract.]

Bonus to the widow of Mr. G.R. Winter.

Communicating to the Agent, M. Ry., letter from the Govt. of India stating that the Secretary of State for India has sanctioned the grant of a — , late Telegraph Engineer.

Indexed.

[P. W. By. 760—25-9-99.]

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Letter from the Agent and Manager, Madras Ry to the Secretary, Madras Ry Co. London. No. 2363 dy 19-5-98.

Mr. Prendergast arrived.

7. Adverting to para. 6 of letter No. 972, I beg to report that Mr. H. H. L. Prendergast, the newly appointed Assistant Telegraph Engineer, arrived here and reported himself for duty on the 9th instant.

Mr. C[illegible]n's privilege.

8. Mr. A. Corben, Second Assistant Auditor, has been granted three months' privilege leave with effect from the 14th instant. The leave will be spent in this country.

Re: contribution by Mr. Marsh to Provident Institution.

9. Mr. J. G. R. Marsh, whose appointment as an Assistant Engineer is referred to in para. 5 of letter No. 970, has been posted for duty on the Calicut-Cannanore extension and this has raised the question whether he is eligible to subscribe to the Provident Institution. In the rules of the Institution, a member is defined as a servant of the Company who receives salary chargeable either in full or in part to the Company's Revenue Account. In his agreement the work on which he is to be employed while in our service is not stated, but in para. 13 of the agreement, he agrees to subscribe to the Provident Institution, and to abide by the rules and regulations of the same.

The same question has not yet arisen with regard to Mr. J. M. Bourne, who was appointed as an Assistant Engineer on the same date, as, for the present, his services are required in Madras on ordinary Revenue Works, but it may be necessary later on to employ him on Construction Works.

I shall, therefore, be obliged if the Board will favour me with a definite ruling on the subject. I am of opinion that both Mr. Marsh and Mr. Bourne should be allowed to subscribe to the Provident Institution as during the three years for which they have been engaged, their salaries will doubtless be charged to Capital and Revenue Accounts. Officers who are engaged in this country for temporary work do not join the Institution, but both Mr. Marsh and Mr. Bourne have agreements for three years.

Mrs. Winter recommended for a bonus.

10. In my letter No. 2345, I regretted to have to report the death of Mr. G. K. Winter, Telegraph Engineer, who had been in the service of the Company for 34 years. Mr. Winter's salary during this long period never exceeded Rs. 863-10-2 per month, and as he had three sons and a daughter to educate, his widow has been left indifferently off. I therefore beg to submit an application for the payment to Mrs. Winter of a bonus of Rs. 10,000 in recognition of the valuable services rendered to the Company by her late husband.

The late Mr. G. K. Winter entered the Company's service as 3rd Class Assistant Engineer on the 20th February 1864, and assumed charge of the Telegraph Department on the 8th April in the same year with head-quarters at Arkonam. He was promoted to 2nd class in September 1867 and to 1st class in April 1871. On more than one occasion, when an Engineer on open line was absent on leave or duty, Mr. Winter willingly undertook the charge of the 1st Division, South-West Line, in addition to his own duties. In 1884 he was removed from the strength of the Engineering Staff and placed in independent control of the Telegraph Department, and in December 1894 he was also entrusted with the supervision of the Engineering Workshops at Arkonam. His death took place at Madras on the 17th January 1898.

Mr. Winter was a Fellow of the Royal Astronomical Society and a Member of the Institutes of Civil Engineers and of Electrical Engineers, and owing to his distinguished attainments in the fields of chemical and physical research he was in a position to render valuable service in all matters which were referred to him as the Company's Scientific Adviser. Throughout his long residence of 34 years at Arkonam he took a keen interest in the working of the

Telegraph Department, in the organization of which he effected material improvements by his personal labours. Evidence of this is observed in the competent class of subordinates whom he specially trained to fill the posts of Inspectors on the line—by no means an easy task when it is realized that technical schools of Telegraphy for even elementary training are not available in Madras.

The following are the *principal Inventions and Improvements introduced by Mr. Winter* on the Madras Railway from which the Company have derived marked benefit, in respect of increased safety and economy of working :—

(I.) A testing box at every minor station to facilitate the detection of direction and location of faults in Telegraph circuits.

This has proved most valuable in minimizing the periods of interruption.

(II.) Telegraph Signalling Instruments in which the indicating needles are magnetized by induction from a permanent magnet.

These have resulted in a great saving annually not only in interruptions caused by reversals and demagnetization of the needles, but also in cost of replacing needles which were broken by Station Masters and Signallers in re-magnetizing them by the old method.

(III.) Needle Instruments with pedal pattern signalling keys in place of the old "drop handle" key.

This system also caused an annual saving in maintenance as with the old drop handles the operators having greater purchase frequently broke or twisted the spindles.

(IV.) The electrical checking of clocks at all the principal stations by means of a current sent daily at 13 o'clock from the Traffic Manager's Office.

This is universally admitted to be one of Mr. Winter's most valuable inventions, for it has enabled the Company to maintain absolutely correct time at many points throughout the line.

(V.) Winter's Patent Block System of train signalling on double and single line—including, on the latter, Electrical Interlocked Starting Semaphores.

This system has been most successful in its working ever since its introduction in 1877 and is now adopted throughout the line. Its merits are well known to all officers and especially to those who are entrusted with the control of the Traffic. Mr. Winter also assisted in framing the special code of signals for use with these instruments, which he was occupied in still further improving at the time of his death.

(VI.) Electrical Intercommunication between Guards, Drivers and Passengers in trains.

The merits and advantages of this system, which has been tested and proved on the Madras Railway for many years, cannot be too highly spoken of. The half-yearly reports testify to the undoubtedly valuable and efficient character of this invention, the use of which has in many cases averted disaster to trains. This system has also been introduced on the Rajputana-Malwa State Railway.

(VII.) An improved system of Duplex and Quadruplex Working on the Morse Circuit.

This was tried in 1875 and was financially a success; but it had to be abandoned owing to a portion of the signalling staff being unable to master some of the technical adjustments of the apparatus. It is, however, believed to be still in use on the Government Telegraph lines.

(VIII.) The compilation of a book of rules and a code for the guidance of Station Masters, Signallers and others connected with the signalling branch of the Telegraph Department, also the establishment of an office for checking errors and omissions in all messages passing over the Madras Railway system.

These contributed largely to the efficient working of this Department.

(IX.) Anti-microbic water filters for use at all stations, offices, staff quarters and schools on the Railway.

These have materially aided in maintaining the health of the subordinate staff throughout the line with direct benefit to the Company.

(X.) The installation of a telephone system between the General Offices at Rayapuram and the Traffic Manager's Office at Central Station.

These instruments were designed by Mr. Winter and economically manufactured in the Telegraph Workshops at Arkonam.

(XI.) Stoney and Winter's Patent Locking Bars for securing additional safety in working switches.

These were designed and patented by Mr. Winter in conjunction with Mr. E. W. Stoney and have been fitted to the switches over a considerable portion of the line. There is no doubt that they have minimised derailments and effected a saving in the value of material and rolling stock usually damaged in accidents of this class.

(XII.) Winter's cast iron wedge clips for insertion in the jaws of pot sleepers to arrest "creep" in the rails.

This has fulfilled its purpose admirably, as will be testified by the Chief Engineer.

(XIII.) The establishment of a branch workshop for carrying out the repairs of the Company's clocks and watches, as well as of theodolites and levels.

This work was most economically conducted and resulted in a material saving to the Company.

(XIV.) Mr. Winter also undertook the chemical testing of oils supplied to the Company by contractors in response to tenders.

This system was most valuable as it enabled all adulterations to be at once detected and the purchase of pure oil ensured at the lowest price.

The foregoing list bears ample testimony of the numerous directions in which the Company derived material benefit from Mr. Winter's varied scientific and professional acquirements. It is not practicable to state the equivalent pecuniary value of such able and valuable services rendered during the long period of 34 years, but the gradual development and present condition of the Company's Telegraph Department afford unquestionable evidence of his efficient administration and control.

Mr. Winter's natural modesty and retiring character made him most reluctant in his life-time to advance any claim for the advantages secured to the Company by means of his numerous inventions as he preferred to leave this matter entirely to the liberality of the Board and the Government.

In the case of the Rajputana-Malwa State Railway, on which, by an arrangement made through the Director-General of Railways in 1883, his system of Electrical Intercommunication in Trains was introduced and fitted under his personal supervision, he appears to have refrained from taking any further action on receipt of the reply from the Government of India to his recent application for an honorarium. In that reply, No. 514 G., dated 24th February 1897 (*vide* enclosure A), it is suggested that Mr. Winter should apply direct to the Bombay, Baroda and Central India Railway, as that Company now work the Rajputana-Malwa Railway. Reference is invited to the correspondence on this subject embodied in letter from the Government of India, No. 632 R. T., dated Simla, 26th June 1886 (*vide* enclosure B), and it is hoped that the perusal of these papers will induce the Government to reconsider the question of the honorarium which he fully expected to receive (*vide* enclosure C).

Mr. Winter was on the eve of retirement under the age rule when his health broke down, and had he survived to complete the full year of extension of service which had been sanctioned by the Board, the grant of a suitable bonus would, it is urged, have been favourably considered. Owing however to his untimely death, it is hoped that the grant of the bonus will now be made to his widow as one son is still dependent on her. The heavy demands on Mr Winter's income for the education of his children in England did not admit of his making suitable and adequate provision for his widow, and an officer of his long service derives very limited benefit from a Fund so recently established, as the Company's Provident Institution. The amount at his credit at the time of his death was Rs. 7,739, of which about one-third represented the contribution from Revenue. It is therefore confidently hoped that the Board will view the circumstances of Mrs. Winter's case as specially deserving of their liberality, in consideration of her late husband's meritorious and distinguished career, which may be characterized as unique in the annals of Railway administration in India.

The following instances of honoraria having been granted by the Government to an officer of this Company are given for the information of the Board :—

A sum of Rs. 10,000 was paid to Mr. Stoney under the authority contained in G.O., No. 640 R., of the 14th October 1882, for the use on State Railways of the switch-locking apparatus invented by him. This invention was made at the expense of the Madras Railway, both as regards labour and materials, and was tested and perfected on the Madras Railway.

Reference to this subject is made in para. 16 of your letter No. 703.

A sum of Rs. 4,000, chargeable to the Company's Revenue, was paid to Mr. Stoney under G.O., No. 358 R., dated 3rd May 1888, as an acknowledgment of the advantages derived by the Company from the use of his various inventions and appliances.

The Board's sanction to the payment of this honorarium is accorded in para. 15 of letter No. 789.

Extract from a letter from the Secretary No. 977 of 1-7-98

Grant of Rs. 10,000 to Mrs. Winter approved.

7. In para. 10 of No. 2,363 you submit an application for a grant to Mrs. Winter of Rs. 10,000 in recognition of the valuable services rendered to the Company by her late husband, for the long period of 34 years, and you very fairly set forth Mrs. Winter's claim to the generous consideration of the Company. Personally Mr. Winter never advanced any claim for the advantages derived by the Company from his numerous useful and ingenious inventions, and the Board are of opinion that they cannot do less than heartily support the application now made on behalf of his widow, and they recommend that the bonus of Rs. 10,000 be considered as an honorarium in return for the advantages secured by Mr. Winter's inventions as applied to the Company's business, and in recognition of his exceptionally good services.

the 19th May 1898.

Enclosures referred to in para. 10 of letter from the Agent and Manager to the Board, Madras Railway, No. 2363, dated the 19th May 1898.

ENCLOSURE A.

Copy of letter No. 514 G , dated 24th February 1897, from the Government of India, P. W. D.

I am directed to acknowledge the receipt of your letter No. 21 R., dated 11th January 1897, forwarding an application from Mr. G. K. Winter, Telegraph Engineer, Madras Railway, for an honorarium for the use of his system of electrical communication in trains on State Railways.

2. In reply, I am to state that, as Mr. Winter's system of intercommunication between Guards and Drivers is not in use on any Railway now under State management, the Government of India are unable to consider the question of granting him an honorarium.

3. In regard to railways not under State management, it is considered that Mr. Winter should address the Companies direct in regard to any claim he may think he has against them.

No. 798, *dated 3rd March* 1897.

Forwarded to the Agent and Manager, Madras Railway, with reference to his letter No. 9661/1, dated 4th January 1897.

(Signed) F. D. FOWLER,
for *Consulting Engineer for Railways.*

ENCLOSURE B.

No. 632 R. T.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY TRAFFIC.

SIMLA, *June* 26, 1886.

To

THE DIRECTOR-GENERAL OF RAILWAYS.

SIR,

With reference to the correspondence ending with Public Works Department letter No. 65 R. T., dated 22nd January 1884, I am directed to forward for information copy of a report on the results of the working of Winter's System of Electrical communication between Guard, Driver and Passenger on the Rajputana-Malwa Railway, with copy of a note thereon by the Consulting Engineer to the Government of India for State Railways, and to request the submission of estimates of the cost of introducing the system on the Railways under your control.

2. The estimates of the cost of fitting the communication to the goods vehicle stock should be kept quite separate from that for the passenger vehicle stock.

I have the honor to be,

Sir,

Your most obedient servant,

FRED. FIREBRACE, MAJOR, R.E.,

Under Secretary.

Documents accompanying.

1. Report on trials of Winter's Electrical communication on the Rajputana-Malwa Railway.

2. Note by the Consulting Engineer to the Government of India for State Railways.

Copy, with copy of enclosures, forwarded to the Local Governments, Administrations and Officers noted in the margin for information.

The Governments of Madras, Bombay, Bengal and North-Western Provinces and Oudh.
The Chief Commissioners of the Central Provinces, British Burma, and Assam.
The Residents, Hyderabad and Mysore.
The Agent to the Governor-General for Rajputana.
The Consulting Engineers to the Government of India for Guaranteed Railways.

(By order,)

FRED. FIREBRACE, MAJOR, R.E.,

Under Secretary.

Enclosures Nos. 1 and 2 to Public Works Department letter No. 632 R. T. of 1886.

BOMBAY, BARODA AND CENTRAL INDIA RAILWAY

INCLUDING

RAJPUTANA-MALWA RAILWAY.

Report by the Carriage and Wagon Superintendent, Rajputana-Malwa Railway, on trials of Winter's System of Electrical Inter-communication between Guard and Driver and Passenger and Driver, as applied to the through Mail Service trains on the Rajputana-Malwa Railway.

In accordance with the intimation conveyed by the Government of India in the correspondence marginally noted, Mr. Winter, the Electrician of the Madras Railway, arrived in Ajmere on the 15th of March 1883, bringing with him leading hands and also materials sufficient to complete one mail train according to his method of application, the details of which have already been submitted to the Government of India in pamphlet form.

Government of India No. 17, dated 6th January 1883, to the Madras Government, and their reply No. 81, dated 22nd June.
Director-General of Railways' No. 024, dated 10th January 1883, to Manager, Rajputana-Malwa Railway.

The first train, composed of one engine, twelve passenger vehicles, one Post Office carriage, one luggage van, and two brake-vans, was completely finished and inspected by the Director-General of Railways (then on tour at Ajmere) and the Manager of this Railway on the 30th March 1883.

Leaving the work of fitting up the next train in progress, Mr. Winter left for Madras about the 1st of April 1883.

Official Meeting No. 18 of 1883, Resolution No. 579.

Estimates,* amounting to Rs. 15,906, were then submitted and sanctioned for fitting up the following engines and coaching vehicles :—

38 *Passenger Engines.*

6 Royal and State Saloons.
5 Ambulance Carriages.
2 Cooking Vans.
14 Luggage Vans.
24 Passenger Brake-vans.
200 Through Mail train passenger vehicles.

Total ... 251 Vehicles.

Causes of delay in bringing the system into regular operation.

The progress of the work of fitting up the vehicles and engines was retarded by many causes, namely :—

i.—Paucity of stock through the opening of the Rewari-Ferozepore Section before the complement of stock for this Railway had arrived from England.

ii.—Delay in preparation of fittings for engines in Locomotive Department.

iii.—Alteration in Engine Service, necessitating the fitting up of O Class as well as M Class Engines.

iv.—Failure of Madras Railway Stores to supply 23 brake-van batteries and their having to be indented for from England.

v.—The arrival of the Leclanché batteries from England in a seriously damaged state, necessitating troublesome repairs.

* These estimates included abnormal charges, such as Mr. Winter's pay, fares of workmen, carriage of tools and materials from Madras, &c., which would not occur in subsequent estimates.

Although the whole of the 251 coaching vehicles named above were completed by the Carriage and Wagon Department, so far as their cable connections, plungers, wire, &c., were concerned, by the 30th of October 1883, there was but one engine ready. Then from the other causes of delay enumerated, the system of working the electrical inter-communication did not come into proper operation until the 10th of November 1884, by which time the following coaching vehicles and engines were fitted up and put into running :—

Vehicles	270
Engines	52

and 40 pairs of bridging ropes (to establish connection when unfitted vehicles were attached to trains) were supplied to the Traffic Department.

Working Results.

A careful record of train duty and interruptions from all causes has been compiled from out-station daily reports. The following are the results :—

From the 10th November 1884 to the 31st December 1885, namely, 415 days, the actual total duty of the through mail trains between Delhi and Agra to and from Ahmedabad has been	571,455	train miles.
Royal and Special trains	2,876	„ „
Total train miles ...	574,331	

The total number of interruptions of every description, rendering the system temporarily inoperative, was 133. Of these, 91 were due to 42 cases of engines, and 49 cases of vehicles being unfitted; in some cases being unprovided with bridging ropes. Of the latter cases, 21 happened between Ahmedabad and Sabarmati, in vehicles carrying railway servants across the Sabarmati bridge, and six were due to the line being washed away, and unfitted vehicles being unavoidably attached to trains.

These 91 cases caused an interruption for 1,350 train miles only. The net duty of properly fitted vehicles and engines was, therefore, 574,331 minus 1,350, or 572,981 train miles, and the number of interruptions for this latter duty was, therefore, 133 minus 91, or 42 cases, the analysis of which is as follows :—

(*a*) Due to defective adjustment of engine signal bells	21	
(*b*) Breaking of part of bell on the road	1	
(*c*) Wilful damage of bell by Engine Driver	1	
	—	23
(*d*) Breaking of cables—through rough usage by shunting staff ...		5
(*e*) Damaged bridging ropes—through improper application and rough usage by staff		3
(*f*) Failure of batteries for want of attention by carriage and wagon staff		4
(*g*) Failure of train staff to couple up side chains and establish connection		1
(*h*) Causing contact, by hooking side chains of rear vehicle across ...		1
(*i*) Derangement of cables and connections in ordinary work ...		5
Total ...		42

The 21 cases of failure of signal bells form half of the whole number,—namely, 42 valid cases—and are due to an experiment made by Mr. Winter, in the trial of a "trembling

striker" for the bell, with a view to the introduction of a "break away" signal. The adjustment of this bell is delicate, and no less than eight cases of failure were clearly traced to the unnecessary interference on the part of Carriage Examiners ignorant of the work. Mr. Winter has now substituted a more simple form of striker, and, although eight engines have been fitted up with them and put into running since October 1885, there has been no instance of failure in this form of bell.

Cases (*b*) and (*c*) explain themselves.

Cases (*d*) are mostly due to bad wire in the cables; and probably to rough usage in throwing the chains over the sharp angles of the buffer heads.

Cases (*e*) are traced to the traffic staff allowing the bridging ropes to trail on the ballast; and in some cases to allowing the wheels to pass over them.

Cases (*f*) need no explanation. They occurred during the first six months of the experiment and are not likely to occur again often.

Cases (*g*) and (*h*) require no explanation.

Cases (*i*). These are pure cases of derangements of connections. The five cases happened during the first six months of the experiment. No cases have since been reported.

Now that the defects in the bells are cured, the actual faults will be practically confined to cases (*f*) and (*i*).

Percentage of Faults.

The interrupted mileage actually run for the 42 cases has been 3,788 train miles; the percentage of faults is, therefore, $\frac{3,788 \times 100}{572,981} = 0{\cdot}66$ per cent. But if we deduct the failures of engine bells and the palpable cases of negligence and ignorance, there are but five other cases due to faults in the connections. These represent an interrupted duty of 324 train miles. This would give $\frac{324 \times 100}{572,981} = 0{\cdot}06$ per cent. of faults on the total train mileage, extending over a period of 415 days, with five through mail trains on the road each day, besides occasional special trains.

Sanctioned estimates up to the 31st December 1885.

Appendix A exhibits in detail the sanctions for fitting up electrical inter-communication up to the end of 1885, amounting to Rs. 32,586.

The present sanctions provide funds for fitting up the following :—

Coaching vehicles	600	
Cleminson covered goods wagons ...	12	
		612
Locomotive engines		63

The progress of the work under these sanctions up to the end of 1885 was as follows :—

Coaching vehicles	473	
Cleminson wagons	12	
		485
Locomotive engines		61

The balance to be completed was therefore—

Coaching vehicles	127
Locomotive engines	2

The Rs. 32,586 provides about Rs. 4,700 for abnormal charges incident to the first introduction of the system, which necessitated the cost of supervision by Mr. Winter, special assistants, fares of workmen, and carriage of materials from Madras. These charges amount to about 24·3 per cent. on the gross estimates; but it is anticipated that a saving of about Rs. 4,700 will result by having executed recent work locally. It therefore follows that future work of this sort will be proportionately cheaper. The following is the *present* approximate cost of a mail train, after deducting the anticipated saving, and allowing the proportion of Locomotive Engines to work each train :—

	Rs.
20 coaching vehicles @ Rs. 36	720
2 engines	204
Total ...	924

But it is anticipated that *future* work can be done at the following rates per vehicle and engine :—

Double 1st class, composite, and 2nd class carriage, each—

	Rs.	A.	P.	Rs.	A.	P.
Cable and wire	19	0	0			
2 plungers and wire connections ...	11	0	0			
Supervision at 10 per cent.	3	0	0			
				33	0	0
The above with one compartment only, and postal vans.	33	0	0			
Deduct cost of 1 plunger	5	8	0			
				27	8	0
3rd class, intermediates, horse boxes, luggage vans, and wagons, each	33	0	0			
Deduct cost of plungers	11	0	0			
				22	0	0
Guards' brake vans, each—						
Cable and wire connections	22	0	0			
2 plungers	13	0	0			
1 battery (10 cells with connections) ...	44	0	0			
Supervision charges at 10 per cent. ...	8	0	0			
				87	0	0
Locomotive engines, each—						
Cable and wire connections	48	0	0			
Engine signal bell and connections ...	29	0	0			
Supervision charges at 10 per cent. ...	8	0	0			
				85	0	0

The cost of a mail train of maximum composition and its complement of engines, calculated from the above rates would be—

	Rs.	A.	P.		Rs.	A.	P.
2 Passenger brake-vans	@ 87	0	0		174	0	0
1 Postal van	@ 27	8	0		27	8	0
3 Luggage vans	@ 22	0	0		66	0	0
4 Double 1st class and composite carriages ...	@ 33	0	0		132	0	0
4 Saloons, 1st and 2nd	@ 27	8	0		110	0	0
1 Intermediate carriage	@ 22	0	0		22	0	0
5 3rd class carriages	@ 22	0	0		110	0	0
20 Vehicles					641	8	0
2 Locomotive engines	@ 85	0	0		170	0	0
				Total ...	811	8	0

Depreciation, Repairs, Maintenance and Extra Supervision.

Depreciation.—Mr. Winter telegraphs that the "life of plungers, engine bells and line were indefinite." I think myself that they should not be taken at any time beyond the average life of vehicles and engines; or, say, 7½ per cent. per annum.

Repairs and renewals.—The cost of petty repairs and renewals may be taken at 2½ per cent., and the cost of charging and refreshing batteries at Rs. 10 per brake-van per annum.

Supervision and extra labour.—The present cost of supervision and extra labour debitable to the present experiments is as follows :—

	Rs.
6 Out-stations @ Rs. 150 per annum	900
1 Travelling Inspector	1,200
Total ...	2,100

If, however, the electrical signalling system were applied universally to the passenger and goods services, the cost of special supervision and extra labour would probably not exceed Rs. 5,000 per annum.

The total passenger and goods mileage for the year 1885 was 5,677,859 train miles; out of this the through mail service performed 502,605 train miles. Then on a train mileage basis the amount fairly chargeable to the mail train service would be $\frac{502,605 \times 5,000}{5,677,859}$, or Rs. 442·95 per annum for the through mail service only.

The proportion of vehicles and engines actually required to work the mail service would be as follows :—

Vehicles.	No.
Trains of coaching vehicles in actual running each day	5
Spare trains for reserves and for vehicles under petty repairs ...	2
Trains undergoing repainting and heavy repairs	1
Total trains of vehicles ...	8

Engines.	
In running daily	8
Under repairs	3
Total locomotive engines ...	11

The capital cost of providing vechicles and engines exclusively for the through mail service only, when taken at *present* rates, would therefore be—

	Rs.	Rs.
8 Trains of coaching vehicles at	720 =	5,760
11 Engines (locomotive) at	102 =	1,122
Total cost of electrical communication for the through mail service only...		6,882

From the foregoing data, the probable annual cost of electrical inter-communication, as applied to the through mail service, would be—

	Rs.
Depreciation on Rs. 6,882 at 7½ per cent.	515·4
Repairs and petty renewals at 2½ „	171·8
Refreshing and replenishing 16 batteries at 10 each... ...	160·0
Supervision and extra establishment	442·6
Revenue cost per annum for the through mails ...	1,289·8

The train mile cost would therefore be $\frac{1289·8 \times 16 \times 12}{502,605}$ = 0·493 pies per train mile,

or per train per day $\frac{1289·8}{365 \times 5}$ = Rs. ·707.

Probable cost of fitting up the whole of the Vehicle and Locomotive Engine Stock.

Including previous expenditure, the cost of fitting up the whole of the vehicle and engine stock of the Rajputana-Malwa Railway System (including all vehicles under erection and supply) is estimated at Rs. 2,24,581.* Of this sum Rs. 32,586 has been sanctioned, leaving Rs. 1,91,995 to be provided, if it is desired to apply this system universally.

* *Vide* Appendix B.

Probable future cost of Depreciation, Repairs, Maintenance, and Extra supervision, if the System is universally applied to all the Passenger and Goods Services.

	Rs.
Depreciation on Rs. 2,24,581 at 7½ per cent.	16,843·575
Repairs and petty renewals at 2½ „	5,614·525
Refreshing and replenishing 256 brake-vans	2,560·000
Batteries at Rs. 10 each	5,000·000
Supervision and extra labour	5,000·000
	30,018·100

Taking the train mileage at no more than that for the year 1885, namely, 5,677,859 train miles, the average cost per train mile would be—

$$\frac{30,018 \times 16 \times 12}{5,677,859} = 1·015 \text{ pies per train mile.}$$

The above is the average cost when the whole of the following are employed :—

Locomotive engines		366
Coaching vehicles	1,356	
Goods vehicles	6,297	
		7,653

But, if the through mail mileage were deducted, the cost for the balance would be more.

It would, therefore, appear that by reason of the high mileage duty of the mail trains as compared with the other services, the cost per train mile is more favourable for the former. Put more graphically, $\frac{1}{48}$th of the whole stock is engaged in the through mail service, and does about $\frac{1}{10}$th of the whole train mileage, while $\frac{47}{48}$ths of the stock only does $\frac{9}{10}$ths of the whole train mileage. In other words, the mail train vehicles do nearly five times the annual duty of the average of the other vehicles; hence for the capital cost, and the annual cost computed from it, the proportionate duty is greater, and consequently the train mileage costs less than the average.

The principal feature in Mr. Winter's system is that he utilizes the side or safety chains of vehicles to produce electrical contact, and when the vehicles of a train are coupled up in the ordinary way, electrical contact is established without any special effort on the part of the marshalling or train staff.

As I before pointed out in the correspondence marginally noted, good Railway practice sanctions the use of side chains, although it has not hitherto been the practice on Indian Metre Gauge State Railways, therefore, before we could apply Mr. Winter's system to the whole stock, it would be necessary to provide over 7,00 sets of side chains at an extra cost of Rs. 2,22,000, so that the total capital outlay would be—

Manager, Rajputana-Malwa Railway's No. 1569 of 7th February 1883, to Carriage and Wagon Superintendent, and Carriage and Wagon Superintendent's reply No. 630, dated 14th February 1883.

	Rs.
For side chains	2,22,000
Electrical gear	2,24,581
Total ...	4,46,581
Deduct, previous sanction	32,586
Balance to be provided	4,13,995

The evidence of this experiment shows that, after making due allowance for mistakes made by the staff in working a system of this kind for the first time, and also for the defects in the trembling striker-bells, which have since been removed, the trial has, on the whole, been eminently successful, and that the working cost is moderate. The captial and working costs have been carefully worked out for the information of the Government of India, and for the Agent and Board of Directors of this Railway, to enable them to decide therefrom whether it is desirable or not to adopt the system for general use in this and State Railway.

APPENDIX A.

SANCTIONED ESTIMATES.

No. of Resolution.	Minutes of Meeting. No.	Minutes of Meeting. Date.	Particulars.	As estimated. No.	As estimated. Amount.
			Vehicles.		Rs. A. P.
579	18	10th Sept. 1883	Mail train vehicles	251	11,271 0 5
371	13	9th June 1884	Cleminson's wagons	12	444 0 0
20	1	6th Jan. 1885	Officers' carriages	6	253 8 11
564	19	8th Sept. 1884	Carriages for Rewari-Ferozepore Railway.	143	6,763 6 4
617	19	24th „ 1883	Third class carriages	80	2,309 9 7
288	10	2nd June 1885	First class carriages with side doors ...	25	925 4 0
288	10	„ „ „	Do. do. end do. ...	28	1,264 3 2
224	7	21st April „	Horse boxes	67	1,833 12 7
			Total ...	612	25,064 13 0
			Engines.		
579	18	10th Sept. 1883	Mail train engines	38	4,635 13 3
435	15	7th July 1884	O class engines	15	1,725 0 0
294	10	2nd June 1885	8 mail and mixed train engines ...	10	1,160 0 0
			2 pilot engines		
			Total ...	63	7,520 13 3
			Grand Total ...	...	32,585 10 3

APPENDIX B.

Approximate estimate for fitting up the whole of the engines and coaching and goods stock (except ballast wagons, break-down vans and travelling cranes) with Winter's System of electrical inter-communication.

			Rs.	Rs.
Probable cost of completing 545 coaching vehicles and 63 engines ...			...	27,800·0
Probable cost of fitting up the balance, namely, locomotive engines	303	at	85-0-0	25,755·0
Single compartment vehicles with line connections and one plunger	13	„	27-8-0	357·5
Double compartment vehicles with line connections and two plungers	114	„	33-0-0	3,762·0
Brake-vans with line connections, plungers, and Leclanché batteries	205	„	87-0-0	17,835·0
3rd class and other vehicles with line connections only	479	„	22-0-0	10,538·0
Total of Coaching Vehicles and Engines ...			...	86,047·5
Goods vehicles fitted with line connections only ...	6,702			
Deduct—Ballast wagons, travelling cranes and break-down vans	405			
	6,297	at	22-0-0	1,38,534·0
Grand Total ...			...	2,24,581·5

[2] *Note by the Consulting Engineer to the Government of India for State Railways, dated 7th June* 1886.

The reports on the working of Mr. Winter's electrical communication between Guard and Driver are, I consider, on the whole, very satisfactory, and I think that the arrangement may, with advantage, be more extensively used on State Railways.

ENCLOSURE C.

MADRAS RAILWAY COMPANY,
TELEGRAPH ENGINEER'S OFFICE,
ARKONAM, *24th November* 1896.

No. 1289.

To

THE ACTING AGENT AND MANAGER,
Madras Railway.

DEAR SIR,

I have been given to understand that at last my system of Inter-communication in trains is most likely to be adopted, at all events, on all State lines in this country, and, although the patent has expired, yet, I think, if the Government were addressed on the subject through an influential channel, they would waive the question of the lapse of the patent in deciding the question of an honorarium.

Even if the patent were still in force, I would have no greater claim against Government than I have at present and the delay in the adoption of the system generally has been through no fault of mine. May I ask you to kindly bring the subject before the local Government with a view to its being brought to the notice of the Government of India with such support as you and the Consulting Engineer are able to give.

I think you are perfectly aware of the history of the introduction of the system on the Madras Railway, but as regards its introduction on the Rajaputana-Malwa Railway and the subsequent correspondence with that Railway and with the Government of India, some of the following particulars are probably not available in your office :—

Early in 1883, the Government of India applied for my services to introduce the system on the mail trains on the Rajaputana-Malwa Railway, and accordingly I went accompanied by an Inspector and workmen. A train was fitted up and tested by the Railway Officials and Colonel Stanton, the then Director-General of Railways, with satisfactory results. I then returned to Arkonam leaving the Inspector and workmen behind to carry out the remainder of the work.

I was subsequently asked for details in order to enable them to prepare an estimate of the cost of the work. This I furnished, adding the following para. to my covering letter :—

"The Royalty or honorarium is not included in the above figures, and has not yet "been settled between the Government of India and myself. As such honorarium will pro- "bably include the use of the system throughout the State lines, I think it need not be "entered in your estimate ; nevertheless, it would be well to remark in the estimate that pro- "vision for such honorarium has not been made."

To this I received a letter asking me to say exactly how I proposed to charge the Royalty.

To this I replied as follows :—

"I should wish to treat the whole of the British Indian State Lines as one Railway, "and it is my intention to ask for an honorarium from the Government in lieu of Royalty "for the use of the system on all such lines as soon as it is in use and approved of on the "Rajputana-Malwa State Railway. In the meantime, however, I think the following arrange- "ment, which I intend to apply to Guaranteed and Foreign State Lines, may be considered "as applicable to the Rajputana-Malwa Railway, and any amount so received may be taken "into account in settling the question of the honorarium hereafter :—

"If on any Railway only a limited number of vehicles are to be fitted, say under "500 altogether, the Royalty will be Rs. 10 per vehicle ; but if a larger number are to be fitted

"as on the Madras Railway, the Royalty will be Rs. 3 per vehicle with a minimum of Rs. 5,000,
"which sum will cover the Royalty on 1,666 vehicles."

To this I received a reply that the Government of India had called for a report of the working of the system after a year's trial, pending submission of which orders on the question of honorarium would be deferred.

This report was submitted in due course in which the following para. giving the result of the year's working, occurs at the end :—

"The evidence of this experiment shows that, after making due allowance for
"mistakes made by the staff in working a system of this kind for the first time, and also for
"the defects in the trembling striker-bells, which have since been removed, the trial has, on
"the whole, been eminently successful, and that the working cost is moderate. The capital
"and working costs have been carefully worked out for the information of the Government
"of India, and for the Agent and Board of Directors of this Railway, to enable them to
"decide therefrom whether it is desirable or not to adopt the system for general use in this
"and State Railways."

The report is accompanied by the following note by Consulting Engineer to the Government of India for State Railways :—

"The reports on the working of Mr. Winter's electrical communication between
"Guard and Driver are, I consider, very satisfactory, and I think that the arrangement may,
"with advantage, be more extensively used on State Railways."

On receipt of a copy of this report, I wrote to the Director-General of Railways asking him to bring the subject of my honorarium for the favourable notice of Government.

In reply, I was told that the matter of the introduction of my system was still under discussion, and that it would be better for me to wait for the result before raising the question of an honorarium.

This last letter is dated 31st August 1887, and I have had no further communication on the subject of the honorarium, although, as I have already said, I understand that at last the system is likely to be introduced generally.

I am about to get the correspondence printed so as to be more easily read, but the gist of the matter is given above. I may add that up to date, I have received no Royalty or recognition of any kind for the use of the system on the Rajputana-Malwa Railway either from Government or the Bombay, Baroda and Central India Railway.

Yours faithfully,

G. K. WINTER,
Telegraph Engineer.

3539/1898

Am 686 dt 28.7.98

(No. I.) 5,000—14-11-85.

No. 9892
R. 686

MADRAS RAILWAY.

AGENT AND MANAGER'S OFFICE,

MADRAS, 28th July, 1898

CONSULTING ENGINEER FOR RAILWAYS
RECEIVED
29 JUL 1898
MADRAS.

3539
29.7.98

From

The Agent and Manager,
M. R. Co.

To

The Consulting Engineer for Railways.
Madras.

SIR,

I have the honour to enclose an extract, para. 18, from my letter to the Board no 2363 dated the 19th May 1898, together with two copies of the enclosures referred to, recommending that an honorarium of Rs 10,000 be paid to Mrs Winter in recognition of the exceptionally good Services rendered by her late husband to the Company, as well as the many advantages which the Company has derived from his numerous electrical and other inventions. I also send ojew para. 7 from the Board's Letter no 977 dated the 1st instant in

which

which they accord their hearty approval to this recommendation.

Particulars of Mr. Winter's Services and the inventions by which the Company has materially benefited are set forth in detail in my letter to the Board, and I request that you will kindly communicate to me the Sanction of Government to the disbursement to Mrs. Winter of the honorarium proposed.

I have the honour to be,
Sir,
Your most obedient Servant,

Lewis J Ward

Agent and Manager.

ASR

MADRAS RAILWAY.

From The Agent and Manager.

To The Consulting Engineer for Railways.

Dated 188

Recd.

No.

Form No. 83. 300—30-6-98.

EXAMINED
Regr. No. 388
1 AUG 1898
Enclosures
RAILWAY ACCOUNTS, M. CRA

OFFICE OF THE CONSULTING ENGINEER FOR RAILWAYS,

Madras, 29th July 1898.

No 2173

OFFICE NOTE.

Letter from the Agent, ~~S~~ Manager Mds. Railway, No 3892 B 686,
dated 28th July 1898, forwarded to the Examiner of Railway Accounts. for favour of remarks

for E. R.

EXAMINER'S REPLY.

E R,

Attention is invited to the remarks contained in para 2 of Govt's endorsement No 604 Ry dy 5th March 98 passing orders on the application for sanction to the grant of a gratuity of Rs 10908 to Mrs Logan. Orders of the Govt in Mrs Logan's case Engr S.R. Ry.

If the Local Govt decides that the circumstances of the present case are of a supposedly special nature to approximate to those in Mrs Logan's case, the application may be submitted for sanction of the Govt of India.

C R 3/8/98

To R
Cells 5/8

3/8

Fo No. 1/A.

Reminders.

*Reply No.*_____

*dated*_____

Enclos: One

No. 99
C

Dated, the 8th Augt 1898.

From

THE CONSULTING ENGINEER FOR RAILWAYS,

MADRAS,

To

THE AGENT AND MANAGER, M. RY.

SIR,

Before laying the subjoint of your letter No. 9892 / B.686 of the 28th July 98. before Government for orders, I must note your perusal of the enclosed G.O. No. 918. R. dated the 17th March 98. on a very similar case. In the face of this ruling of the Govt. of India it seems useless to send the application forward in the absence of fuller particulars.

I have &c

J Hs

8/8/98

Despatched on 8/8/98

Chief Secretary's Office

(No. I.)

No. 9892

739

MADRAS RAILWAY.

AGENT AND MANAGER'S OFFICE,

Madras, 12th August 1898.

377b
C. No.
Rec'd 13.8.98

From

The Agent and Manager.
M. & S. R.

Proofs

To

The Consulting Engineer for Railways.
Madras.

CONSULTING ENGINEER FOR RAILWAYS
RECEIVED
13 AUG. 1898
MADRAS.

Sir,

In reply to your letter No. 99/C of the 8th instant, I beg to remind you that the proposed grant to Mr. Winter has been submitted by my Board on the ground that the late Mr. Winter was entitled to remuneration on account of the many valuable inventions he introduced, these inventions being placed in all cases free at the disposal of the Madras Railway.

2. Mr. Winter was on the point of applying for a recognition of his work in connection with these inventions when unfortunately illness overtook him and he passed away. His widow is in straitened circumstances and she has not sufficient

money

money to enable her to complete the educa-
-tion of her youngest son.

3. The Government of India in its
letter 514 G of the 24th February 1897 specially
desired that Mr. Winter should submit his
claim for an honorarium to the Companies
interested and my Board having reviewed
the whole of the circumstances connected
with Mr. Winter's many inventions made
use of by the Madras Railway, determined to
grant to his widow a sum of Rs. 10,000 and
I was directed to seek the sanction of Govern-
-ment to the disbursement of this sum.

4. The Board's recommendations in
cases of this kind are made, it is under-
-stood, with the sanction of the Government
Director and as the Board's letters to their
Agent in India are submitted to the India
Office before they are despatched, it is pre-
-sumed that the approval of that Office
was obtained to the recommendation in
regard to the bonus to be granted to Mrs
Winter.

5. The bonus proposed for Mr. Logan
was

MADRAS RAILWAY.

From

The Agent and Manager.

To

The Consulting Engineer
for Railways.

Dated 188

Read.

No.

was a compassionate grant and her case does not seem to me to be parallel with Mrs Winter's.

I have the honour to be,
Sir,
Your most obedient servant,

Agent & Manager.

MADRAS RAILWAY.

From

The Agent and Manager.

To

The Consulting Engineer

for Railways.

Dated 188

Recd.

No.

Form No. 10.

PUBLIC WORKS DEPARTMENT.

Consg Engrs C. Nos. 3539/29.7.98 & 3776/13.8.98. RAILWAY BRANCH.

SUBJECT.

Proposed honorarium to Mrs Winter, relict of the late Mr G. K. Winter of the Madras Railway Co.

HIS EXCELLENCY THE GOVERNOR.

~~THE HON'BLE SIR HENRY BLISS, K.C.I.E.~~

~~THE HON'BLE MR. GROSE, C.I.E.~~

FOR ORDERS.

I invite H-E's general attention to the letter, first below, from the Govt Structural Engr B.G. about an honorarium to the widow of the late Mr Winter the Company's Electrical Engineer.

On at first presented the case was more or less parallel to that of the widow of the late Mr Logan Chief Engineer of the S.I.R.C.

But Mr Rivers' later letter puts things in a different light.

I think we may send forward the application, with full particulars, and recommend that it be granted.

7/8/98

13/8/98

Very well. Prob. I am pretty sure that if Mr Winter had been in the public service, his widow would get nothing.

A.H. 24.8.98

A

B

C

D

R/25/1858

R. Form No. 12.

No.

Government of Madras.

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

To

The Secy. to the Govt. of India,

P. W. Department.

_____ 189 .

Sir,

With reference to the correspondence ending with your No. 514. G. dated the 24th Feb. 97. I am directed to forward a copy of a letter, & of its enclosure, No. 9892/B. 686 dated the 28th July 96. from the Agent. Madura R. Co. asking that an honorarium of Rs. 10,000 may be granted to the widow of the late Mr. J. K. Winter, Telegraph Engineer, in recognition of that gentleman's eminently good services to the Company.

2. The enclosure to the letter under reference state in full detail what those services were, and it is therefore unnecessary to recapitulate them here.

3. In communicating the Government's recommendation that the application Agent's recommendation on Mr. Winter's behalf may be acceded to, I am instructed to add that the principle laid down by the Govt. of India for guidance in such cases, in your letter No. 607. G. dated the 5th March 98, have not been lost sight of: but in

this Govt' giving the case dealt with in that letter. As
the present case are not quite parallel ones.

I have &

Flds.

25/8/98

R. No. 13—500—30-7-97.

No. 1105. Rly

Government of Madras.

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

C 10/97

To

The Secretary to the Government of India,

Public Works Department,

SIMLA.

Draft Submitted
for approval of H.E.

Flds
25/8/98

31st August 1898.

Sir,

Issue 3.9.98

2.9.98
26.8.98

With reference to the correspondence ending with your No. 514 C., dated the 24th February 1897, I am directed to forward a copy of a letter, and of its enclosures, No. 9892/E.686, dated the 28th July 1898, from the Agent and Manager, Madras Railway Company, asking that an honourarium of Rs. 10,000 may be granted to the widow of the late Mr. C. K. Winter, Telegraph Engineer, in recognition of that gentleman's exceptionally good services to the Company.

2. The enclosures to the letter under reference state in full detail what those services were, and it is therefore unnecessary to recapitulate them here.

3. In communicating this Government's recommendation that the Agent's application on Mrs. Winter's behalf may be acceded to, I am instructed to add that the principles laid down by the Government of India for guidance in such cases, in your letter No. 607 C., dated the

25/8/98

WM

5th March 1898, have not been lost sight of, but in this Government's opinion the case dealt with in that letter, and the present case, are not quite parallel ones.

I have the honour to be,

Sir,

Your Most Obedient Servant,

7 V S.

Joint Secretary.

25/8/98

Documents accompanying:-

Copy of letter from the Agent & Manager, S.I.Ry
No. 9892 / B. 686 dated the 28/7/98, with enclosures.

Despatched on 2/9/98

R. Form No. 12.

No. 179 Rm

Government of Madras,

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

To

The Secy. to the Govt. of India,

P. W. Department

26. April 1899.
27

Sir,

I am directed to request that early orders may be passed on my letter No. 1105 Ry dt 31st August 1898, requesting sanction to the payment of an honorarium of Rs 10,000 to the widow of the late Mr. G. K. Winter, Telegraph Engineer, Madras Railway

28/4/98

J.d. 26.4.99.

Ind 28/4

Public Works (1899) Department.

Railway Branch

CURRENT No. 664

No. 50 dated 22/5/99 From The Govt. of India

Endorsement

Order

Copy forwarded for information.

No. 873. E.E.

Dated the 6th May 1899

Received " 15th " 1899

Registered

Enclosures

Spare copies

22/5/99

Sd S.R.

19.5.99.

SUBJECT.

Honorarium to the Executors of the late Mr. E.K. Winter.

Stating that the matter regarding the grant of an honorarium of Rs. 10,000 has been referred to the Govt. of India for orders.

Sd 4.5.99

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

No. 843 R.E.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY ESTABLISHMENTS.

All communications should be addressed to the Secretary.

To

The Joint Secretary to the Government of Madras,
Public Works Department, Railway Branch.

Simla, the 6th May 1899.

Sir,

With reference to your letter No.179 R.M., dated 27th April 1899 on the subject of the application for the grant of an honorarium of Rs.10,000 to the widow of the late Mr. G.K.Winter, Telegraph Engineer, Madras Railway, I am directed to state that the matter has been referred to the Secretary of State for India and that orders will issue on receipt of a reply.

I have the honour to be,
Sir,
Your most obedient servant,

G. M. Walker

Under Secy. to the Govt. of India.

Documents accompanying:-

Nil.

B.S.V.

Extract from a letter from the Secretary no 998 of 16-6-99.

Grant of Bonus of Rs. 10,000 to Mrs. Winter.

12. The Board are glad to inform you that they have received a communication from Sir Horace Walpole, dated 14th instant, intimating that the Secretary of State for India in Council, on the recommendation of the Government of India, sanctions the grant of a bonus of Rs. 10,000 to the widow of Mr. G. K. Winter, late Telegraph Engineer on the Madras Railway, in recognition of the valuable services rendered by him to the Company.

(No. I.)

No. 9892
B. 871

MADRAS RAILWAY.

AGENT AND MANAGER'S OFFICE,

Madras, 18th July 1899.

CONSULTING ENGINEER FOR RAILWAYS MADRAS. RECEIVED 19 JUL. 1899

a No 3687 Recd 1-7-99

From

The Agent and Manager.
M. R. Co.

To

The Consulting Engineer for Railways,
Madras.

Sir,

With reference to your endorsement No 50/H dated 22d ultimo 1899 on G.O. no 843 dated 6th idem. I have the honour to forward herewith an extract para 12 from a letter from the Secretary no 998 dated the 16th June 1899 and to request that you will kindly give me formal sanction to remit the equivalent of Rs 10,000 of to the Board for disbursement to Mrs Winter.

I have the honour to be,
Sir,
your most obedient servant

Francis Evans

Agent and Manager.

Enc.
one.

Public Works (1899) Department.

B

P. W. Ry

Read the following

CURRENT No. 930.

Letter from the agent & manager, M. Ry
No 9892/B.686 of 28-7-98.
— Do — to — Do — No 99 of 8/8/98.
— Do — from — Do — No 9892/739 of 12-8-98.
— Do — to the Govt of India No 1105 Ry of 31-8-98.
— Do — Do — No 179 RRu of 27-4-99.
— Do — from — Do — No 843 Rs. of 6-5-99.
— Do — Do — No 1306 Rs. of 10-7-99.

From The Govt of India

Order No 797 Ry of 21/7/99

Communicated to the
Agent and Manager, Madras
Railway.

No. 1306 Rs.

Dated 10th July 1899
Received 18th do
Registered — do —
Enclosures
Spare copies

J.d
D.R.
20.7.99.

SUBJECT.

Bonus to the Widow of
Mr G. K. Winter

Stating that the Secretary
of State for India has
sanctioned the grant of
a ——, late Telegraph
Engineer, Madras Ry.

To
The Agent & Manager, M. Ry. ✓
" Examiner, G.T.S. Ry Accounts ✓
" Chief Engr. for Rys. ✓

Despatched on 21/7/99 20.7.99

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

JOINT SECRETARY TO
RECEIVED
10 JUL. 1899
GOVT. OF MADRAS

All communications should be addressed to the Secretary.

No. 1306 R.E.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY ESTABLISHMENTS.

To

The Joint Secretary to the Government of Madras,

Public Works Department, Railway Branch.

Simla, the 10th July 1899.

Sir,

In continuation of Public Works Department No.843 R.E., dated 6th May 1899, I am directed to state that on the recommendation of the Government of India, the Secretary of State for India, has sanctioned the grant of a bonus of Rs. 10,000 to the Widow of Mr.G.K.Winter, late Telegraph Engineer on the Madras Railway.

I have the honour to be,

Sir,

Your most obedient servant,

G Inchwalker

Under Secy. to the Govt. of India.

Documents accompanying:-

Nil.

M.I.