No 570 Read the following letter from Lieutenant-Colonel J H M. SHAW-STEWART, R E, Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 17th January 1873, No 29 —

With reference to Government Orders marginally noted I have the honour to submit the information called for in the Order of Government, dated 12th April 1871, No. 1,009, regarding the value of stores in hand and the estimated amount of capital to be ultimately locked up in stores for the Great Southern of India and Madras Railways

No 2,116, dated 6th September 1872
„ 2,309, „ 2nd October „
„ 2,604, „ 5th November „

2 A statement submitted by the Agent of the Great Southern of India Railway shows that the value of stores in hand and in transitu for that Railway on the 31st December 1870 was as follows —

	Rs
Plant	1,535
Permanent way materials	20,67,665
Locomotives unéffected	
Rolling stock do	98,630
Fuel	98,498
Miscellaneous stores	5,10,069
Total	27,76,397

3 The large accumulation under the head of "Permanent way materials" is explained by the fact that at the date of the return there were in hand permanent way materials for the Southern Extension to the value of nearly 20 lakhs

4 Under the head of "Miscellaneous stores" also there was a very large accumulation, the following items being most conspicuous, namely —

	Rs
Fencing materials	37,477
Insulators	7,882
Iron, assorted	79,619
Jumpers	5,687
Telegraph instruments (single needle)	2,783
Returned stores	28,998
Stationery*	13,992
Steel, cast	27,431
Timber	1,05,311
Telegraph wire	27,010

All these items may be largely reduced as may indeed the miscellaneous stores generally. The extension in progress and in contemplation will absorb large quantities of certain stores.

5 Mr. Betts states that at the date of the return he had no bridge girder, iron roofing, or other stores such as are referred to in paragraph 3 of the Government of India letter dated 25th March 1871, No. 238-A.-R.*

* G O, 12th April 1871, No. 1,009.

6. The amount of stores in hand appearing to me to be unnecessarily large I suggested to the Agent the following figures, based upon the average yearly consumption of stores, for the line between Erode and Negapatam :—

	Approximate average yearly consumption.	Sum proposed to be set aside for purchase of stores.
	RS.	RS.
Plant	1,000	2,000
Permanent way materials	40,000	72,000
Locomotive and rolling stock	39,000	80,000
Fuel	70,000	1,26,000
Miscellaneous stores	25,000	50,000
Total...	1,75,000	3,30,000

7. Mr. Betts in reply stated that the provision which I had proposed for fuel would suffice if it were not for the fact that arrangements had now to be made for increased traffic on account of the materials for the proposed extension as well as for the carriage of the permanent way materials for the Nizam's State Railway. The Agent at the same time expressed his opinion that, while my estimate for permanent way stock would be sufficient for a line newly opened, it would not be suitable for a line portion of which have been open from five to eleven years. Mr. Betts concluded by suggesting the following figures:—

	RS.
Plant	5,000
Permanent way materials	1,15,000
Locomotive and rolling stock	80,000
Fuel	1,50,000
Miscellaneous stores	50,000
Total...	4,00,000

8. The increased traffic spoken of by Mr. Betts will only cause a temporary disturbance of the average consumption of fuel and need not affect any estimate of the normal requirements of the line, and I, therefore, think that the sum of Rupees 1,50,000 is in excess of the value of the stock of fuel which should be held, and, whilst admitting that the consumption of permanent way stores will be greater in the future than it has been in the past, I yet think that Mr. Betts has somewhat over-estimated future requirements. On the other hand, I think on reconsideration that even Mr. Betts has not made sufficient allowance for miscellaneous stores, and I am, therefore, inclined to accept Rupees 4,00,000 as a fair estimate of the amount of capital which should be allowed to be locked up in stores on account of the line, 168 miles in length, between Negapatam and Erode.

9. This question, so far as it relates to the Madras Railway Company, is dealt with in my letter, No. 488, dated 12th September 1872,* at which date I was still in correspondence with Mr. Elwin upon the subject.

* G. O., dated 2nd October 1872, No. 2,309.

10. The additional papers which I now forward include estimates by the Chief Engineer and Locomotive Superintendent of the value of stock to be ultimately held in reserve on account of their respective departments for the maintenance and working of the Madras Railway system. These estimates, which provide not only for the stores to be held by the Chief Engineer and Locomotive Superintendent but also for the stores to be held on their account in the General Stores Department, are as follow:—

Engineering Department.

	RS.
Tools	31,412
Road materials	82,375
Permanent way materials	2,11,676
Renewal of rolling stock	26,510
Accident stock	75,803
Telegraph stores	12,894
Instruments	5,000
Total...	4,45,670

or in round figures Rupees 4,50,000

Locomotive Department.

	RS.
Coal, coke, and patent fuel	3,00,000
Firewood	2,00,000
Timber	2,00,000
Duplicate parts of engines	2,00,000
Wheels and axles (carriage and wagon)	50,000
Springs (bearing and buffer, do.)	20,000
Tires (steel and iron)	1,00,000
Iron	1,50,000
Steel	50,000
Brass and iron castings	80,000
Miscellaneous stores	2,20,000
Total...	15,70,000
Add estimated value of stores to be supplied by the General Storekeeper	50,000
Grand Total...	16,20,000

11. On receipt of these estimates I asked the Agent to let me have estimates of the value of stores to be held in stock for the Traffic and Medical Departments and for the use of the various office establishments, adding that I gathered from previous correspondence that "in the opinion of the Chief Engineer and Locomotive Superintendent the amount of capital to be ultimately locked up in stores on account of their departments is, including the value of stores in the hands of

the General Store-keeper, as follows,

	RS
Engineering Department	4,50,000
Locomotive do	16,20,000
Total	20,70,000

and I presume that this sum *plus* the value of stores* referred to in the first paragraph of this letter will, in your opinion, represent the total capital to be ultimately locked up in stores †

* Traffic, Medical, etc

† My letter, No 1,004, dated 3rd December 1872

12 Mr. Elwin in reply‡ stated that he considered my estimate a very low one, and expressed a wish that the settlement of the question should be postponed until the railway is finished and has ceased to be maintained at the expense of Capital, in accordance with the original proposition contained in paragraph 3 of the Secretary of State's despatch to the Government of India, dated 22nd December 1870, No 84.

‡ His letter, No. 13, dated 8th January 1873

13 Out of a total length of 857 miles 832 miles are now open for traffic and 800 miles are at this moment being maintained at the expense of Revenue, and I do not think that the officers of the Company are likely to be able to form any better estimates two and a half years hence than they can form now

14. The estimates which Mr. Elwin speaks of as too low are not my estimates but those of the Chief Engineer and Locomotive Superintendent of the Madras Railway Company. Their estimates I am prepared to recommend for the consideration of Government, adding Rupees 1,80,000 to provide for the requirements of the Traffic and Medical Departments, etc, and so raising to Rupees 22,50,000 the total amount of capital to be locked up in stores on account of the 857 miles of the Madras Railway system.

From Lieutenant-Colonel J H M SHAW-STEWART, R E, Consulting Engineer for Railways, to the Agent and Manager of the Madras Railway Company, dated Madras, 3rd December 1872, No 1,004

REFERRING to paragraph 9 of my letter, No 831, dated 10th October last, I have the honour to request that you will, at your earliest convenience, favour me with your opinion as to the least quantity and value of stores, such as stationery, which should be held by the General Store-keeper for the use of the several office establishments, and that you will call upon the Traffic Manager and the Consulting Physician to express their opinions as to the least quantity and value of stores which should be held in reserve for the use of their respective departments

2 I gather from the correspondence marginally noted that in the opinion of the Chief Engineer and Locomotive Superintendent the amount of capital to be ultimately locked up in stores on account of their departments is, *including value of stores in the hands of the General*

Consulting Engineer's No. 525 of 12th November 1872, in your No 831, dated 13th idem
Your No 843, of 21st November 1872
Locomotive Superintendent's No 596, dated 29th November 1872, in your No 874, dated 30th idem.

Store-keeper, as follows,

	RS
Engineering Department	4,50,000
Locomotive do	16,20,000
Total	20,70,000

and I presume that this sum *plus* the value of stores referred to in the first paragraph of this letter will, in your opinion, represent the total capital to be ultimately locked up in stores

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From R B ELWIN, Esq, Agent and Manager of the Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 8th January 1873, No 13

WITH reference to your letter, No 1,004, dated the 3rd ultimo, and to previous correspondence upon the subject of "capital locked up in stores," I have the honour to inform you that in my opinion the estimate given in paragraph 2 of your letter mentioned above is a very low one and would be altogether insufficient for the purposes required

2 In former discussions on this subject the general opinion arrived at was that the value of two years' average consumption of stores would probably be the amount that would have to be provided, but it was felt that we were scarcely in a position then to form a very accurate opinion on the subject as the line was still incomplete and it was difficult to ascertain with accuracy to what extent the present stock would be reduced We are probably in a better position now than we were then, but it seems to me that it will be a safer course to adhere to the original proposition as given in the despatch of the Secretary of State, No 84, dated 22nd December 1870, in which it is proposed by the Government of India that after a railway is finished and has ceased to be maintained at the expense of Capital means of providing stores, etc, etc

3 The same view is taken of the subject by my Board in paragraph 3 of their letter, No 2,000, dated London, 28th October 1870, addressed to the Under Secretary of State, in which the Directors remark that "on completion of the works of construction they will be prepared to submit to the Secretary of State an estimate of the amount of floating capital that may be required for the purpose"

4 The Chief Auditor agrees with me in my view of the case and states in support of his opinion—

"This view, that no satisfactory estimate can be made until the completion of the construction of the line, appears to be borne out by the state of the store balances at the 30th September last as compared with those given in my letter, No 1,195, dated 18th June 1872.

"The stock of stores at the several periods referred to stand thus,

	RS	A	P
30th June 1871	43,58,400	4	11
31st December 1871	41,25,596	13	5
31st March 1872	39,84,237	7	6
30th September 1872	40,63,089	2	3

showing that although the tendency is a general lowering of the balances yet the reduction is not so decided as to warrant our acceptance of the Consulting Engineer's estimate, which suggests that one-half of the sum of the existing balances will represent the total capital to be ultimately locked up in stores"

From R B ELWIN, Esq, Agent and Manager of the Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 13th November 1872, No 821

I HAVE the honour to forward, herewith, a copy of the Chief Engineer's letter, No 525, of yesterday, containing his observations upon the points raised by you in your letter, No 831, dated the 10th ultimo, in connection with the subject of capital locked up in stores.

2 With reference to your letter, No 914, of the 8th instant, I have the honour to inform you that the Locomotive Superintendent hopes to be able to furnish the additional information called for by you on this subject before the end of the current month

From the Chief Engineer, to the Agent and Manager of the Madras Railway Company, dated Madras, 12th November 1872, No 525

CONSULTING Engineer's letter, No 831, of the 10th ultimo

I have to offer the following observations on the subject of the stock of stores in hand in this department as exhibited in the return submitted by me on the 23rd September last

2 The stock of permanent way materials amounted to Rupees 8,81,575 If from this be deducted the value of pot-sleepers, tie-bars, cotters, and gibbs (Rupees 4,54,315), a portion of which has since been charged to the Neilgherry Branch, and the remainder it is proposed to use for renewals on the 3rd and 4th Divisions, South-West Line, the total stock will be reduced to Rupees 4,27,260 The value of the other materials, omitting rails, amounts to Rupees 13,890, and the stock in hand is in many cases less than one and in all cases below two years' consumption, so that I have now only to deal with the item of rails (amounting to Rupees 4,13,370), the stock of which is considerably in excess of a two-years' supply based upon our present expenditure It must be remembered, however, that sixty-five miles of the south-west line have now been opened sixteen years for public traffic, and that the portion of the line between Madras and Arconum has to bear the traffic of both the north-west and south-west lines. We must, therefore, look forward to a time, and not a very distant one, when almost the whole of the rails on this length will require renewal I cannot, under the circumstances, recommend any reduction in our present stock, though perhaps it does not come within the strict meaning of "stock of stores ultimately necessary for the requirements of the line"

3. The stock of telegraph stores amounted to Rupees 1,00,170 This, however, as explained in my letter, No 445, of 23rd September, includes the cost (Rupees 84,247) of material for the Neilgherry Branch, for renewals of the south west line with Siemen's standards, and other special works, thus leaving a balance of Rupees 15,923 for ordinary maintenance purposes The average expenditure was shown to be Rupees 6,417, so that the stock in hand is not much more than two years' consumption

4 With reference to paragraph 9 of the Consulting Engineer's letter under reply I beg to refer you to the statement forwarded with this office letter, No 397, of 19th July 1871, which provides for the amount of stock necessary to be reserved for maintenance purposes The question was very carefully gone into by Mr Going, and nothing has since transpired to lead me to alter the views expressed in his letter The amount, however, named therein, Rupees 6,22,336, will be reduced (deducting the item, Rupees 1,94,560, for wooden sleepers) to Rupees 4,27,776 if sanction is received for the renewal of the road between Muddikerry and Beypore with iron pot-sleepers, adding telegraph stores and surveying instruments, a sum of, say, Rupees 4,50,000 will be arrived at as the amount of stock to be *ultimately* reserved for maintenance purposes as particularized below .—

	RS
Tools	31,412
Raw materials	82,375
Permanent way materials	2,11 676
Renewal of rolling stock	26,510
Accident stock	75,803
Telegraph stores	12,894
Instruments	5,000
Total	4,45,670

or in round figures Rupees 4,50,000

From R B ELWIN, Esq, Agent and Manager of the Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 21st November 1872, No 843

IN accordance with the request contained in your letter, No 950, of the 16th instant, I have the honour to forward, herewith, a copy of the Acting Chief Engineer's letter, No 397, of the 19th of July 1871, and its enclosures

2 With reference to paragraphs 2, 3, and 4 of your letter the Chief Engineer offers* the following observations —

* No 537, dated 20th November 1872

"I do not attempt to reconcile the statement of *store requirements* as given in my letter, No 525, of 12th instant, with the statement of *actual stock of stores* furnished with my letter, No 445, of 23rd September The one has no connection with the other The statement furnished on the 23rd September shows the value of stock *in my hands* on 30th June 1872, whereas the amount stated in my letter, No 525, represents the value of stock to be *ultimately* reserved for maintenance purposes The Consulting Engineer appears to be under the impression that I have, or am supposed to have, a stock in hand of all description of stores which are consumed by my department This is by no means the case Permanent way and telegraph materials are the only stores of any considerable value of which I have a stock Tools, raw materials, and other miscellaneous stores are obtained from the General Stores from time to time as required for use on the line and are charged off immediately when issued, so that in estimating the amount of reserve stock I have had to take into account several items which are not to be found in the statement of stock in my hands This fact disposes of the apparent disparity between the two sums mentioned in paragraphs 3 and 4 of the Consulting Engineer's letter under reference The stock of 'tools, raw materials, renewal of rolling stock, and accident stock' necessary to be *ultimately* reserved for maintenance purposes will not bear a comparison with the small stock of 'miscellaneous stores' that happens to remain in my hands"

3 An explanation of the item, Rupees 26,510, for renewal of rolling stock, is afforded by Mr Going in his letter, of which a copy is enclosed herewith

From R B ELWIN, Esq, Agent and Manager of the Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 30th November 1872, No 874

WITH reference to previous correspondence I have the honour to enclose you the copy of a report* and three statements which have been prepared by the Locomotive Superintendant in connection with the remarks contained in your letter, No 831, of the 10th ultimo

* No 596, dated 29th November 1872

2 The statement affecting the Locomotive Department, which I forwarded to you on the 3rd ultimo, included only stores in hand in that department (exclusive of the General Stores Department) You will observe, however, that at the foot of one of the statements forwarded herewith, "Statement showing the description and value of stores estimated as necessary to be kept in stock on Revenue Account," Mr Wright has provided separately for the stores which will have to be supplied to his department from General Stores

From W B WRIGHT, Esq, Locomotive Superintendent, to the Agent and Manager of the Madras Railway Company, dated Perambore Works, 29th November 1872, No 596

I BEG to acknowledge the receipt of a copy of the Consulting Engineer's letter, No 831, dated 10th October, bearing your endorsement of the 12th idem.

2. I do not see any difficulty in complying with Colonel Shaw-Stewart's request that "in attempting to estimate the probable amount of capital which it will be *ultimately* necessary to keep locked up in stores those stores should alone be considered which are required for the maintenance and working of the line."

3 The statement which accompanied my letter, No 329, of 30th September last, includes, as remarked by the Consulting Engineer, the expenditure on Capital as well as that upon Revenue, my estimate being based upon the consumption of all stores actually used during the year 1871 in the execution of work by this department, whether for other departments or for ourselves

4 The Consulting Engineer's estimate is based upon the consumption of stores upon Revenue Account in this department proper during the last six half years, which gives an actual average expenditure of Rupees 7,34,411, but I think that this average cannot safely be taken as a basis whereon to estimate our future requirements—

1*st* —Because there has during the period reviewed already been an increase in the amount of work to be done, and it is to be hoped that there will be a still further increase in the development of traffic

2*ndly* —Because the repairs and renewals of engines, and more especially those of vehicles, are likely to be much heavier for some years to come than they have hitherto been To this subject I shall hereafter revert as Colonel Shaw-Stewart expresses a desire that I should deal as fully as possible with this part of the question

5 With reference to the sixth paragraph of the Consulting Engineer's letter I beg to state that, provided we can rely upon the regular supply of coal, coke, and patent fuel from England, I think that the sum suggested by Colonel Shaw-Stewart, say Rupees 3,00,000, will probably be a sufficient amount to place against this item as representing the value of this fuel actually in store in this country at any one time Funds will, I presume, be specially set apart to meet the necessary home expenditure in the purchase and shipment of fuel

6. As regards the amount proposed to be allowed for the supply of wood fuel I beg to state that it is altogether inadequate Wood must be kept in stock many months before it is fit for use as locomotive fuel, it is also necessary to keep at all times a large reserve stock in store as the contractors can only supply at certain seasons whilst the traffic requirements not unfrequently debar this department from the use of the line when required for the purpose of loading up and bringing in wood fuel As shown in the statement accompanying the Consulting Engineer's letter, the consumption under the head of "wood" for the last twelve months amounts to Rupees 2,11,659, and I consider that we should keep very nearly one year's supply at all times in stock, value say Rupees 2,00,000

7. With regard to the last paragraph of Colonel Shaw-Stewart's letter it would necessarily be a work of some difficulty to go in detail into the question of the various descriptions of stores that should be kept in store I have, therefore, prepared a statement showing under the same heads as those given in the statement which accompanied my letter, No 329 of 30th September, the description and value of stores which I consider to be the least quantity that can safely be kept in stock to meet the requirements of this department on Revenue Account In the item of "miscellaneous stores" I have allowed the sum of Rupees 50,000 as the amount of cash necessary to be locked up on account of the requirements of this department *on the General Stores*

8 The present balances must, I suppose, be allowed to stand; but many of the items are capable of being greatly reduced and as the present stock is used up need not be replaced in full

9 *Timber* —As there is at present very little work to be done upon Capital Account out stock of timber may be reduced to, say, Rupees 2,00,000 I estimate that, considering the heavy renewals of rolling stock now necessary, our stock of timber will be reduced to about Rupees 2,00,000 by the close of the year 1873

10 *Duplicate parts of Engines* —As we have no less than nine different classes of engines our stock of duplicates is necessarily very large It is requisite at all times to have ready for replacement such parts as wheels and axles, crank axles, cylinders, connecting rods, springs, etc, etc These are very costly, and represent a large amount of locked-up capital, but, as will be

Proceedings of the Madras Government, Public Works Department,
25th February 1873.

readily understood, the possession of these articles enables us to do with fewer locomotive engines and tenders, as the duplicates can be at once made use of and render engines available which would otherwise probably have to stand idle for months, at times when their original gearing requires renewal or repair

11 I find that the items cylinders, wheels and axles, and springs, alone represent a value of nearly Rupees 2 00,000 out of the total of Rupees 2,12,761-1-1 standing against this department under the head of "Duplicate parts of Engines" The reduction of this sum will be dependent upon the renewal from our duplicate stock of parts of engines as they fail and which it may not be considered necessary to replace. I have put them down at Rupees 2,00,000

12 *Carriage and Wagon Iron work* —The whole of this was supplied from England for the construction of rolling stock on Capital Account. None of it is necessary for purposes connected with Revenue Account

13 *Wheels and Axles; Carriage and Wagon* —Four hundred and thirty-seven sets in store One hundred sets of these will be sufficient to keep in stock as duplicates for use on Revenue Account, value say Rupees 50,000

14 *Springs, Carriage and Wagon, Bearing and Buffer.*—The greater portion of these belong to the above-mentioned carriage and wagon iron work A sum of Rupees 20,000 will be sufficient to allow on Revenue Account for duplicate and spare springs for carriages and wagons

15 *Tire, Steel and Iron* —Our stock of these does not appear to be excessive considering the consumption which is, and will be, heavy for some time to come

16 The stock *at this date* stands at less than Rupees 1,00,000 in value, and I think that sum sufficient provision to meet our requirements

17 *Iron* —Our stock is large but includes cast metal and pig and a large quantity of scrap, old tire iron, etc, which can be utilized when our steam-hammer is brought into use. I think, however, that the stock might safely be reduced, and that Rupees 1,50,000 will be enough to allow in future for this item.

18 *Steel* —I think that Rupees 50,000 will be sufficient to provide for our requirements under this head

19 *Brass and Iron Castings* —Our issues of these are very large, and a large stock must be kept up I think, however, that the quantity at present on hand will suffice to meet our requirements, value say Rupees 80,000

20 *Miscellaneous Stores* —I do not think that the stock in store under this head can safely be reduced below its present value, say Rupees 2,20,000, exclusive of the sum of Rupees 50,000, which in the seventh paragraph of this letter I have suggested as the sum necessary to be provided on account of the estimated consumption of stores on Revenue Account to be supplied by the General Store-keeper

21. *Rolling Stock Renewals* —To revert to the latter part of the seventh paragraph of the Consulting Engineer's letter a reference to the periodical statements showing the construction of rolling stock will readily furnish an idea of the amount of depreciation and of the consequent amount of renewals which may be expected as time goes on. The average life of the wood-work of a wagon in England is, I believe, estimated at thirteen years, and although, when the wood-work has to be renewed, the more important parts of the iron work can again be made use of, heavy and costly repairs to such iron work, springs, etc, are always necessary, whilst the smaller iron work, such as minor fittings, bolts, and screws, have to be entirely replaced

22 For more ready reference I forward, herewith, a statement which shows in progressive ratio the age and quantity of our rolling stock, by which it will be seen that there are now about 1,004 vehicles (*minus* such few of them as may have been already renewed) which are in their thirteenth year

23. It would be useful and interesting to ascertain for the purpose of comparison what is the experience of other and older-established Indian Railways as to the lifetime of rolling stock I do not think that we can reasonably expect our rolling stock to obtain a longer average life than that reached by similar stock in England, as although some of our vehicles have lasted beyond that limit others have not lasted up to it.

24 It is, of course, desirable to get all the work that can safely be got out of the stock before condemning it, but, on the other hand, it is desirable to be prepared to meet a much heavier expenditure in future on this account than has hitherto been necessary

25. *Locomotive Engine and Tender Repairs and Renewals* — I forward a statement showing the years in which each lot of engines were erected and the numbers in each lot.

26 It will be scarcely necessary for me to enter into any explanation regarding the increase that may be anticipated in repairs and renewals New engines run many years with comparatively minor repairs, but after a certain time their most important and expensive parts require renewal So long as the line was in course of construction and our stock of engines periodically received additions of new ones the average expenditure on the repairs of the whole was necessarily decreased in the ratio such additions of new stock bore to the numbers and conditions of the old, due allowance, of course, being made for the relative age, work, wear and tear, and numbers of the older engines at the time of each augmentation

27 During the last six years twenty engines only have been added to our stock, and the whole of the other engines have either been in, or are shortly coming in, to the shops for heavy boiler, fire box, and other costly repairs, while all have been re-tired, many of them several times

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LOCOMOTIVE DEPARTMENT.

Statement showing the Description and Value of Stores estimated as necessary to be kept in Stock on Revenue Account.

Description of Stores	Value
	RS
Coke Coal Patent fuel Firewood	3,00,000
Timber	2,00,000
Duplicate parts of Engines	2,00,000
Carriage and Waggon Iron-work	2,00,000
Wheels and Axles (Carriage and Waggon)	Nil
Springs, Carriage and Waggon, bearing and buffer	50,000
Tyres, Steel and Iron	20,000
Iron	1,00,000
Steel	1,50,000
Brass and Iron Castings	50,000
Miscellaneous Stores	80,000
	2,20,000
Total	15,70,000
Add—Estimated value of Stores to be supplied by General Storekeeper	50,000
Grand Total	16,20,000

29*th November* 1872.

(Signed) W B WRIGHT,
Locomotive Superintendent

LOCOMOTIVE DEPARTMENT

Statement showing the year in which each lot of Engines were erected, and the Number in each lot.

Date of Erection	Number of Engines
1855	5
1856	17
1858	4
1859	5
1860	7
1861	16
1862	8
1863	13
1864	1
1865	4
1866	26
1869	5
1870	15
Total	126

29*th November* 1872 (Signed) W B WRIGHT,
Locomotive Superintendent.

Locomotive Department.

Rolling Stock constructed.

Description.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	Total.
Sleeping Carriages	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	4
1st Class...	1	2	...	...	...	...	...	5	3	1	...	...	...	...	...	...	...	...	12
2nd do.	1	3	...	...	...	...	...	...	10	3	10	...	...	15	...	...	...	...	42
3rd do.	7	14	2	1	17	35	15	20	10	7	10	11	50	...	2	...	...	35	234
Composites	...	8	...	...	...	...	...	...	...	...	5	...	6	...	...	6	...	...	21
Night Composites	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Open Goods Waggons ...	10	80	10	...	...	51	...	...	...	...	18	...	...	...	...	...	...	...	169
Open-sided Goods Waggons	...	...	...	...	90	...	...	...	80	120	...	...	...	...	...	...	...	...	240
High-sided Open Goods Waggons	...	...	...	20	21	20	110	160	190	70	378	92	195	300	170	110	...	...	1,836
Ballast Waggons ...	25	35	...	93	68	16	...	48	20	16	...	...	...	...	...	...	...	...	321
Coke Waggons	5	20	10	10	50	116	19	...	10	40	...	160	...	...	...	...	...	...	440
Road Waggons	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7
Cattle Waggons... ...	...	10	20	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	35
Covered Goods Waggons.	...	50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50
Carriage Trucks... ...	4	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8
Timber Trucks	...	10	...	14	2	4	...	...	...	...	...	...	...	...	...	...	...	...	50
Brake Vans	...	9	5	...	3	8	...	5	5	20	29	...	1	...	...	6	19	...	81
Horse Boxes	...	5	...	5	...	...	...	10	...	10	...	...	...	...	...	...	10	...	40
Water Trucks	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2	...	...	...	4
Inspection Carriage ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Gun-powder Vans ...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Store Vans	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	3
Total Vehicles in year...	53	247	47	154	253	250	149	248	278	287	441	272	253	315	174	122	29	35	3,607

1855	53	Eighteenth year.																		
1856	300	300	Seventeenth year.																	
1857	...	347	347	Sixteenth year.																
1858	...	...	501	501	Fifteenth year.															
1859	...	...	...	754	754	Fourteenth year.														
1860	...	...	...	...	1,004	1,004	Thirteenth year.													
1861	...	...	...	...	...	1,153	1,153	Twelfth year.												
1862	...	...	...	...	...	...	1,401	1,401	Eleventh year.											
1863	...	...	...	...	...	...	...	1,679	1,679	Tenth year.										
1864	...	...	...	...	...	...	...	...	1,966	1,966	Ninth year.									
1865	...	...	...	...	...	...	...	...	...	2,407	2,407	Eighth year.								
1866	...	...	...	...	...	...	...	...	...	...	2,679	2,679	Seventh year.							
1867	...	...	...	...	...	...	...	...	...	...	...	2,932	2,932	Sixth year.						
1868	...	...	...	...	...	...	...	...	...	...	...	...	3,247	3,247	Fifth year.					
1869	...	...	...	...	...	...	...	...	...	...	...	...	...	3,421	3,421	Fourth year.				
1870	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,543	3,543	Third year.			
1871	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,572	3,572	Second year.		
1872	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,607	3,607	First year.	

29th November 1872.

(Signed) W. B. WRIGHT,
Locomotive Superintendent.

Proceedings of the Madras Government, Public Works Department, 25th February 1873.

From the Agent of the Great Southern of India Railway, to the Acting Consulting Engineer for Railways, dated Negapatam, 22nd May 1871, No 4,040

I ATTACH hereto a Statement showing the value of all stores in hand in all departments of this Railway on the 31st December last, sub-divided under the heads specified in the paper which accompanied your letter No 110, dated the 14th ultimo We have no bridge-girders, iron roofing, etc , in hand, so I have not shown any additional sub-head.

2 The only large accumulation of stores under any one head is that shown under "Permanent-way Material" About 20 lakhs of the total amount (Rs 29½ lakhs) expended represents the value of iron material sent from England for the Southern Extension

3 The material so sent out is not one-half of what will be required for the permanent-way of the Extension, and it does not include any girders for bridges, or plant for construction purposes, nor yet any engines or rolling tock iron-work

4 During the construction of this Extension, or until the commencement of laying of permanent-way, I consider that a sum of about 70 lakhs will represent the value of stores placed to debit of an open or suspense account

5 After that date the amount could be reduced each half-year until a fair proportionate sum is reached as suggested by the Government of India I would in each case take the working of the preceding half-year as a guide in fixing the amount for the current half-year

6 I consider it would be an improvement to send forward English indents half-yearly instead of yearly.

Statement showing the amount expended on account of Stores unissued to works on the 31st December 1870

Description	Permanent way Stores Department	Engineering Stores Department	General Stores Department	Stores in Transitu	Total
	RS A P	RS A P	RS A P	Rs. A. P	RS A P
Plant			1,535 6 0		1,535 6 0
Permanent-way materials ..	1,96,989 14 6		12,21,797 15 5	6,48 876 12 5	20,67,664 10 4
Locomotives (unerected)					
Rolling Stock (unerected)			96,892 7 0	1,737 14 6	98,630 5 6
Fuel ..			73,341 1 8	25 156 7 2	98 497 8 10
Miscellaneous Stores	754 0 10	8,633 11 0	4,99,539 10 0	1 141 3 0	5,10,068 8 10
"Salamanca" cargo lost at sea ..				1,60,588 7 4	1,60,588 7 4
"War Cloud" cargo jettisoned				16,758 7 3	16,758 7 3
Total ..	1,97,743 15 4	8,633 11 0	18,93,106 8 1	8,54,259 3 8	29,53,743 6 1

(Signed) W. S BETTS,
Agent

From the Agent of the Great Southern of India Railway, to the Acting Consulting Engineer for Railways, dated Negapatam, 26th March 1872, No 4,438

YOUR letter No 39 of 31st January last. The Government of India intimated that the ultimate sum to represent Capital locked up in Stores should be arrived at by half-yearly reductions until a fair proportionate amount is reached, and I suggested that upon completion of the Southern Extension these reductions should be fixed upon the working of each preceding half-year. It would be difficult now to name precise sums with any degree of accuracy

2 The items entered under Permanent-way Stores Department, and Trichinopoly Stores, do not represent the wants of the open line The last-named belongs to the Southern Extension exclusively, and the first represents only permanent-way material kept in store for repairs and possible contingencies The open line draws its stores from the General Stores Department

3 In reply to the 2nd paragraph of your letter, I have to explain that the heading of "Returned stores" covers a very large number of miscellaneous articles The stock of "steel, cast or octagon" is large if compared with our present actual expenditure, but this is caused from the advisability of keeping in store a supply of every size We may be called upon at any time to issue sizes which have not before been required The stock of timber is seasoning I anticipate the whole will be worked off during the current year.

From the Agent of the Great Southern of India Railway, to the Consulting Engineer for Railways, dated Negapatam, 23rd October 1872, No 4,763

So long as the train service remained at its present limited mileage, I think the provision made (in your letter No 450 of the 19th instant,) for fuel would suffice , but we have now to make arrangements for running special trains of permanent-way material for the Hyderabad State Line, and soon for our own Engineering Department If the estimated traffic in the south is realized, we shall have (looking to the reduced train-loads which will follow the adoption of the narrow gauge, and the trying gradients between Trichinopoly and Madura), to increase the train mileage considerably, and then the provision to be made for fuel would be insufficient.

2 With regard to permanent-way material your estimate would suffice for a line nearly opened (in its entire length) for traffic, but for a line which for near one-half its length has been in use (for portions) from five to eleven years, I consider a more liberal allowance should be made

3 I wish to suggest the following figures, based upon present requirements, for your consideration —

	RS
Plant	5,000
Permanent-way material	1,15,000
Locomotive and Rolling Stock	80,000
Fuel	1,50,000
Miscellaneous Stores	50,000
Total	4,00,000

The papers you asked for are herewith returned.

No. 571. ORDER THEREON, 25th February 1873, No. 611.

RAILWAY No 75.

WITH this letter the Consulting Engineer submits correspondence on the subject of placing a limit to the amount of Guaranteed Capital locked up in Stores on the Madras and Great Southern of India Railways, information on which was called for in the Orders noted in the margin.

G O, No 595, dated 1st March 1871.
,, ,, 1009, ,, 12th April ,,
,, ,, 2116, ,, 6th Sept 1872
,, ,, 2604, ,, 5th Nov ,,

2 His Excellency the Governor in Council concurs with the Consulting Engineer in the opinion that but little would be gained by postponing the settle-

ment of the question until after the final completion of the line, and His Excellency considers that for the reasons given the estimate framed by the Consulting Engineer may be accepted.

(Here enter No. 612, dated 25th February 1873.)

(True Extract.)

PUBLIC WORKS DEPARTMENT,
FORT ST. GEORGE, 25*th February* 1873.

No. 572.

No. 612.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

RAILWAY No. 76.

From Government of India, No. 49 A. R., dated 6th February 1871.
From Government of Inda, No. 238 A. R., dated 25th March 1871.
From Government of India, No. 1,096 A. R., dated 22nd August 1872.
To Government of India, No. 2,310 dated 2nd October 1872.
From Government of India, No. 1,482 A. R., dated 25th October 1872.

SIR,—With reference to the correspondence noted in the margin, I am directed to forward the accompanying papers which have been submitted by the Consulting Engineer, together with the Proceedings of Government thereon, in regard to the question of placing a limit on the amount of Guaranteed Capital locked up in the purchase of Stores on the Madras and Great Southern of India Railways.

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

Colonel, R. E.,
Secretary to Government.

Exd. T. O'Connor.

Govt. of India 1873

PUBLIC WORKS.

To

THE SECRETARY TO THE GOVERNMENT

OF INDIA.

Dated February 25th.

Read.

Read

G. O., 25th February 1872, No. 612

FEBRUARY.

No. 572

FORWARDING correspondence in regard to the question of placing a limit to the amount of Guaranteed Capital locked up in the purchase of Stores on the Madras and Great Southern of India Railways.

19

Railway Department. CONSULTING ENGINEER'S OFFICE,

No. 29

From

LIEUT.-COLONEL J. H. M. SHAW STEWART, R.E.,

Consulting Engineer for Railways,

To

COLONEL G. W. WALKER, R.E.,

Secretary to Government,

Public Works Department,

Fort Saint George.

SIR,

With reference to Government Orders marginally noted, I have the honour to submit the information called for in the order of Government dated 12th April 1871 No 1009, regarding the value of stores in hand and the estimated amount of Capital to be ultimately locked up in stores for the Great Southern of India and Madras Railways.

Rc. 2116 d/6 Sept/72.

Rc. 2309 d/2 Oct/72.

Rc. 2604 d/5 Nov/72.

2. A statement submitted by the Agent of the Great Southern of India Railway

Railway stores, that the value of stores in hand and in transitu for that railway on the 31st December 1870 was as follows;

Plant	Rs 1.535
Permanent Way Materials	20.67.665
Locomotives unmarked	-
Rolling stock do	98.630
Fuel	98.498
Miscellaneous Stores	5.10.669
Totals	27.76.397

3. The large accumulation under the head of Permanent Way Materials is explained by the fact that, at the date of the returns, there were in hand Permanent Way materials for the Southern extension to the value of nearly 20 lacs.

4. Under the head of Miscellaneous

Miscellaneous stores, also, there was a very large accumulation, the following items being most conspicuous, Viz;

Fencing Materials	37.477
Insulators	7.882
Iron assorted	79.619
Sleepers	6.687
Telegraph Instruments (unfitted)	2783
Returned stores	28.998
Stationery	13.992
Steel Cast	27.421
Timber	1.05.311
Telegraph Wire	27.010

all these items may be largely reduced as may indeed, the Miscellaneous Stores generally. The extensions in progress and in contemplation, will absorb large quantities of certain stores.

5. Mr. Bell states that, at the date of the returns, he had no bridge girders

guidance in respect of other stores similar to those referred to in paragraph 3 of the Government of India's letter dated 28th March 1871, No 238 A. R. [illegible] G.G. 12 April 1871 No 1009.

b. The amount of stores in hand appearing to me to be unnecessarily large I suggested to the Agent the following figures, based upon the average yearly consumption of stores, for the line between Erode and Beypatanad:-

	Approximate average yearly Consumption	Sum proposed to be set aside for purchase of Stores
Plant	£ 1.000	2.000
Permanent Way Materials	40.000	72.000
Locomotive & Rolling stock	39.000	86.000
Fuel	70.000	126.000
Miscellaneous Stores	25.000	60.000
Total	1.75.000	3.32.000

To this Mr Betts in reply stated that the provision which had proposed for for fuel would suffice if it were not for the fact that arrangements had now to be made for increased traffic on account of the materials for the proposed extension as well as for the carriage of the Permanent Way materials for the Tuticorin State Railway. The agent at the same time expressed his opinion that while any estimate for Permanent Way stock would be sufficient for a line merely of metre gauge it would not be suitable for a line portion of which have been open from five to eleven years. Mr Betts concluded by suggesting the following figures:-

Plant	£ 5.000
Permanent Way Materials	116.000
Locomotive & Rolling Stock	80.000
Fuel	150.000
Miscellaneous Stores	50.000
Total	4.00.000.

The

8. The increased traffic spoken of by Mr. Bell will only cause a temporary disturbance of the average consumption of fuel and need not affect any estimate of the normal requirements of the line, and I therefore think that the sum of £160.000 is in excess of the value of the stock of fuel which should be held; and whilst admitting that the consumption of permanentway stores will be greater in the future than it has been in the past, I yet think that Mr. Bell has somewhat overestimated future requirements. On the other hand I think, on reconsideration, that even Mr. Bell has not made sufficient allowance for Miscellaneous stores, and I am therefore inclined to accept £4.00.000 as a fair estimate of the amount of capital which should be allowed to be locked up in stores on account of the line, 168 miles in length, between Pregapalam and Erode.

9. This question so far as it relates to the Madras Railway Company, is dealt with in my letter No 488 dated 12th September 1872, at which date I was still in correspondence with Mr. Elwin upon the subject.

*G.O. dated 2d. October/72 No 2369.

10. The additional papers which I now forward include estimates by the Chief Engineer and Locomotive Superintendent of the value of stock to be ultimately held in reserve on account of their respective departments for the maintenance and working of the Madras Railway system. These estimates, which provide not only for the stores to be held by the Chief Engineer and Locomotive Superintendent but also for the stores to be held on their account in the General Stores department, are as follows:—

follows:-

Engineering Department.

	Rs
Tools	31.412
Road Materials	82.475
Permanent Way Materials	2.11.676
Renewal of Rolling Stock	26.510
Accident Stock	76.803
Telegraph Stores	12.894
Instruments	5.000
Total	4,45,670

or in pound figures £ 4.50.000

Locomotive Department.

	Rs
Coal, Coke and Patent Fuel	3.00.000
Firewood	2.00.000
Timber	2.00.000
Duplicate parts of Engines	2.00.000
Wheels and Axles (Carriage and Wagon)	50.000
Springs (bearing and buffer, do-do)	20.000
Tyres (Steel and Iron)	100.000
Iron	150.000
Steel	60.000
Brass and Iron Castings	80.000
Miscellaneous Stores	2.20.000
Total	15.70.000
add estimated value of Stores to be supplied by the General Storekeeper	50.000
Grand total	16.20.000

On receipt of these estimates I asked the agent to let me have estimates of the value of stores to be held in stock for the Traffic and Medical Departments, and for the use of the various office establishments, adding that I gathered from previous correspondence that in the opinion of the Chief Engineer and Locomotive Superintendent the amount of capital to be ultimately locked up in stores on account of their departments is, including the value of stores in the hands of the General Storekeeper,

as

"as follows,

Engineering Department Rs 4.50.000

Locomotive ——— do ——— 16.20.000

Total 20.70.000

"and I presume that this sum, plus the
"value of stores* referred to in the first para-
"graph of this letter, will in your opinion
"represent the total Capital to be ultimately
locked up in stores.

12. Mr Elwin in reply* stated* that he considered my estimate a very low one, and expressed a wish that the settlement of this question should be postponed until the railway is finished and has ceased to be maintained at the expense of Capital, in accordance with the original proposition contained in paragraph

* Traffic, Medical &c.

* my letter No 1004 dated 3rd December 1872.

* his letter No 13 dated 8 January 1873

paragraph 3 of the Secretary of State's despatch to the Government of India, dated 22nd December 1870. No 84.

13. Out of a total length of 857 miles, 832 miles are now open for traffic, and 800 miles are at this moment being maintained at the expense of Revenue, and I do not think that the officers of the company are likely to be able to form any better estimates two and a half years hence than they can form now.

14. The estimates which Mr Elwin speaks of as too low are not any estimates but those of the Chief Engineer and Locomotive Superintendent of the Madras Railway Company. Their estimates I am prepared to recommend for the consideration of Government, adding Rs 1.80.000 to provide for the requirements of the Traffic and Medical Departments, etc, and so raising to

Rs

Rs 22.50.000 the total amount of Capital
to be levied upon Mysore on account of
the 85 miles of the Madras Railway
system.

I have the honour to be
Sir
Your most Obedient Servant
Madras
17 January 1857

H. Monteath Lt Col. R.E.
Con Engineer for Railways

Railway Department Consulting Engineer's Office
No 1004

To.

The Agent & Managers
Madras Railway Company
Madras

Sir

Referring to para 9 of my letter No 931 dated 10th October last, I have the honour to request that you will at your earliest convenience favour me with your opinion as to the least quantity and value of stores, such as stationery, which should be held by the General Storekeeper for the use of the several office establishments, and that you will call upon the Traffic Manager and the Consulting Physician to express their opinions as to the least quantity and value of stores which should be

P.W. 1873 Nº 44
Railway Department
1873
No 370.

From
The Consulting Engineer
for Railways,

To
The Secretary to Government,
P. W. Department,
Fort Saint George

Dated 10th January 1873
Rec'd 20th January 1873

Ans 15/

No 611-612-23 & 24 forwarding the information called for in G.O. No 1009 P.W. dated 19th April 1871, regarding the value of stores in hand & the estimated amount of Capital to be ultimately locked up in

No 13.

MADRAS RAILWAY 37

AGENT AND MANAGER'S OFFICE

Madras, 8th January 1873.

From

R B Elwin Esqre

Agent and Manager. of Hall & Co

To

Lt Col Hall Shaw Stevenson C. B Rs.

Consulting Engineer for Railways

Sir,

With reference to your letter No 1004 dated the 3rd ultimo and to previous correspondence upon the subject of "Capital locked up in Stores", I have the honour to inform you that in my opinion the Estimate given in paragraph 2 of your letter mentioned above is a very low one, and would be altogether insufficient for the purpose required.

2. In former discussions on this subject the general opinion arrived at was that the value of two years average consumption of Stores would probably be the amount that would have to be provided, but it was felt that we were scarcely in a position then to form a very accurate opinion on the subject, as the line was still incomplete, and it was difficult to ascertain with accuracy to what extent the present Stock would be reduced. We are probably in a better position now than we were then, but it seems to me

that it will be a safer course to adhere to the original proposition as given in the despatch of the Secretary of State № 84 dated 22d December 1870 in which it was proposed by the Government of India that after a Railway is finished and has ceased to be maintained at the expense of Capital means of providing stores &c &c &c -

3 The same view is taken of the subject by my Board in paragraph 3 of their letter №. 2600 dated London 28th October 1870 addressed to the Under Secretary of State in which the Directors remark that "on completion of the works of construction they will be prepared to submit to the Secretary of State an estimate of the amount of floating Capital that may be required for the purpose".

4 The Chief Auditor agrees with me in my view of the case and states in support of his opinion

"This view that no satisfactory "estimate can be made until the completion "of the construction of the Line appears to "be borne out by the State of the Store "Balances at the 30th September last, as "compared with those given in my letter "№ 1195 dated 18th June 1872

"The stock of stores at the several "periods referred to stand thus.

" 30th June 1871 — 43,58400 . 4 . 11
" 31st December " — 41,25596 . 13 . 5
" 31st March 1872 — 39,84237 . 7 . 6
" 30th September " — 40,63,089 . 2 . 3

"showing that although the tendency
"is a general lowering of the Balances,
"yet the reduction is not so decided, as
"to warrant our acceptance of the
"Consulting-Engineer's Estimate, which
"suggests that one half of the sum of the
"existing Balances will represent the
"total Capital to be ultimately locked
"up in stores".

I have the honour to be
Sir,
Your most Obedient Servt.

Wm Yolland

Agent & Manager.

No. 321.

MADRAS RAILWAY

AGENT AND MANAGER'S OFFICE

Madras, 13th November 1872

From

R. B Elwin Esqre,

Agent and Manager of the M. R Co.

To

Lieutt Col J Hall & Law Stewart R E

Consulting Engineer for Railways

Sir,

I have the honour to forward herewith a copy of the Chief Engineer's letter No 525 of yesterday containing his observations upon the points raised by you in your letter No 831 dated the 10th ultimo in connection with the subject of Capital locked up in Stores -

2 With reference to your letter No 914 of the 8th instant I have the honour to inform you that the Locomotive Superintendent hopes to be able to furnish the additional information called for by you on this subject before the end of the current month -

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

Agent and Manager

MADRAS RAILWAY.

From

The Agent and Manager

To

The Consulting Engineer

for Railways

Dated 1st } January 1873
Rec'd 1st }

No 13

"Replying further to the Engineer-in-Chief's letter No 525 of yesterday I have the honour to state that the Locomotive Superintendent hopes to be able to furnish the additional information called for by you on this subject before the end of the current month."

Dy. No. 25 Stores, 73 dated 2-1-73

No 525

Madras Railway Company
Chief Engineer's Office
Madras 12th November 1872

The Agent and Manager
Quarter Sir

Acknowledging Sequeira's letter No 831 of the 10th instant
Have to offer the following observations
on the subject of the stock of stores on hand viz.
This Establishment as submitted on the return
submitted by me on the 23rd September last.

2. The Stock of Permanent Way Materials
amounted to Rupees 881,575 As from this be
deducted the values of Rails, Fee-hard, Letters
and Bolts (Rupees 454,315) a portion of which
has since been charged to the Engineering
Branch, and the remainder is in process to
use for renewals on the 3rd and 4th Quarters
South Mark Line. The total stock would be as =
= cered to Rupees 427,260. The values of the
other materials, nothing Rails, amounts to
Rupees 13,890 and the stock in hand is in
many cases less than one, and in all cases
below two years consumption, so that I have
now only to deal with the item of Rails
(amounting to Rupees 413,370) the stock of which
is considerably in excess of a two years supply
based upon present expenditure. It would
be remembered however that 65 miles of the
South West Line have been opened 18 years
for public traffic, and that the renewal of the
line between Madras and Arcanum has to

MADRAS RAILWAY

From

The Agent and Manager.

To

The Consulting Engineer

for Railways

Dated 13th October 1872

Rec'd 14- 10 72. 3706/73

No 821

Forwarding a copy of
Chief Engr's Letter No 525
Containing his observa
tions upon the points
raised in Cons Engr's
letter No 831 in Connection
with the subject of
Capital Locked up
in stores. &c.

bear the traffic of both the North West and South West lines. We must therefore look forward to a time and not a very distant one when almost the whole of the rails on this length will require renewal. I cannot under the circumstances recommend any reduction in our present stock, though perhaps it does not come within the strict meaning of "Stock of Stores ultimately necessary for the requirements of the line"

3. The stock of Telegraph stores amounted to Rupees 100,170. This however as explained in my letter N° 445 of 23 September includes the cost (Rupees 84,247) of material for the Neilgherry Branch, for renewals of the South West Line with Siemens Standards and other special works. thus leaving a balance of Rupees 15,923 for ordinary maintenance purposes. The average expenditure was shown to be Rupees 6447. so that the stock in hand is not much more than two years consumption

4. With reference to paragraph 9 of the Consulting Engineers letter under reply I beg to refer you to the statement forwarded with this Office letter N° 397 of 19 July 1871. which provides for the amount of stock necessary to be reserved for maintenance purposes. The question was very carefully gone into by Mr Going and nothing has since transpired to lead me to alter the views expressed in his letter The amount however named therein Rupees 622,336 will be reduced (deducting the item Rupees 194,560 for Wooden Sleepers) to Rupees 427,776 if sanction is received for the renewal of the Road between Muddukerry and Beypore with Iron Cut Sleepers. adding Telegraph Stores and Surveying Instruments a sum of say Rupees 450000 will be arrived at as the amount of Stock to be ultimately reserved for maintenance purposes as particularized below.

Tools	Rupees	31,412
Raw Materials	"	82,375
Permanent Way Materials	"	211,676
Renewal of Rolling Stock	"	26,510
Accident Stock	"	75,803
Telegraph Stores	"	12,894
Instruments	"	5,000
	Rupees	4,45,670

or in round figures —— Rupees 4,50,000

Yours faithfully
(signed) Beresford Anderson
Chief Engineer

(True Copy)

Agent and Manager

P.W. 37/73.

P.C. 25 July/73 Ch. 4-5,

No. 848.

MADRAS RAILWAY 47

AGENT AND MANAGER'S OFFICE.

Madras, 21st November 1872.

From

The Agent and Manager, of the M & C

To

Lt Col J Hall Khan Stewart RE

Consulting Engineer for Railways.

Sir,

In accordance with the request contained in your letter No 900 of the 15th instant, I have the honour to forward herewith a copy of the Acting Chief Engineer's letter No. 397 of the 19th of July 1871 and its enclosures

2 With reference to paragraphs 2, 3 and 4 of your letter the Chief Engineer offers the following observations

No 537 - 20th November 1872

"I do not attempt to reconcile the "statement of Stores requirements as given "in my letter No 525 of 12th instant with the "statement of actual stock of Stores "furnished with my letter No 445 of 23rd "September. The one has no connection with "the other The statement furnished on the "23rd September shows the value of stock "in my hands on 30th June 1872, whereas "the amount stated in my letter No 525 "represents the value of stocks to be ultimately "reserved for maintenance purposes. The "Consulting Engineer appears to be under

"the impression that I have, or am supposed
"to have, a stock in hand of all description
"of stores which are consumed by my
"Department This is by no means the case
"Permanent Way and Telegraph materials
"are the only stores of any considerable value
"of which I have a stock. Tools, Raw
"materials and other Miscellaneous Stores
"are obtained from the General Stores from
"time to time as required for use on the
"Line, and are charged off immediately
"when issued. So that in estimating the
"amount of reserve stock I have had
"to take into account several items which
"are not to be found in the Statement of
"Stock in my hands. This fact destroys
"the apparent disparity between the two
"sums mentioned in paragraphs 3 and 4
"of the Consulting Engineer's letter under
reference The stock of tools, raw materials
renewal of rolling stock, and accident
"stock" necessary to be ultimately re-
served for maintenance purposes will
"not bear a comparison with the small
"stock of 'Miscellaneous Stores' that
"happens to remain in my hands".

3 A full explanation of the item
Rs 26,570 for renewal of rolling stock is
afforded by Mr Young in his letter of which
a copy is enclosed herewith.

I have the honour to be
Sir
Your most Obedient Servant
J. N Mellis
for the Agent

No. 874

MADRAS RAILWAY. 53

AGENT AND MANAGER'S OFFICE.

Madras, 30th November 1872.

From

The Agent and Manager of the M&C Co

To

Lieut Col. Hall & Law Stewart RE.

Consulting Engineer for Railways.

Sir,

x No 596 - 29th Nov 1872

With reference to previous correspondence I have the honour to enclose you the copy of a Report and three statements which have been prepared by the Locomotive Superintendent in connection with the remarks contained in your letter No 831 of the 10th ultimo.

2. The statement affecting the Locomotive Department which I forwarded to you on the 2nd ultimo included only stores in hand in that Department, (exclusive of the General Stores Department). You will observe however that at the foot of one of the statements forwarded herewith – "Statement "showing the description and value

MADRAS RAILWAY.

From

The Agent and Manager.

To

The Consulting Engineer

for Railways.

Dated 21st Nov 1872
Recd. 21.

No. 843.

Sir,

With reference to your letter No 831 dated 10th inst. forwarding statements of Locomotive Engines &c. requiring repairs and of Electric Telegraph Instruments &c. to the value of Rupees 3,36,000 and requesting to be furnished with the particulars of the Engines &c. mentioned in the Statements, I have the honor to forward herewith the required particulars.

"of Stores estimated as necessary
"to be kept in Stock on Revenue
"Account" &c. Knight has
provided separately for the Stores
which will have to be supplied
to his Department from General
Stores.

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

J. N. Mills
for the Agent & Manager

MADRAS RAILWAY.

From

The Agent and Manager.

To

The Consulting Engineer

for Railways.

Dated 30th June 1872

Recd. 2. Dec. 3.15 p.m.

No. 874

Forwarding copy of a letter dtd 5-9-6 & three statements received from the Loco. Supdt in Connection with the subject of supplies locked up in Stores

P.W. 370/73.

P.G. 25 July/73 Ans h: 5-9-

No. 596.

Agent & Manager
Madras Railway Office
Egmore, 30th June 1872

Sir,

I have the honor to forward herewith a copy of a letter dated the 5th September 1872 addressed to the Locomotive Superintendent of this Railway, and the statements which accompanied it, relative to the supplies of Stores required for the Locomotive Department.

2. I do not suppose that the Stores will be required in any large quantities for some months to come, but I should be glad to receive your opinion as to the probable amount of Coal that will be required for the Locomotives during the next twelve months.

3. The letter to the Locomotive Superintendent was written at the request of the Consulting Engineer for Railways, and I should be glad to receive your opinion as to the necessity of supplying the Locomotives with Coal during the rainy season.

I have &c.

Agent & Manager.

expenditure of Rupees 7,34,411; but I think that this average cannot safely be taken as a basis whereon to estimate our future requirements.

1st Because there has, during the period reviewed, already been an increase in the amount of work to be done; and it is to be hoped that there will be a still further increase in the development of traffic.

2nd Because the repairs and renewals of Engines, and more especially those of Vehicles, are likely to be much heavier for some years to come than they have hitherto been. To this subject I shall hereafter revert as Colonel Shaw Stewart expresses a desire that I should deal as fully as possible with this part of the question.

5. With reference to the 6th para of the Consulting Engineer's letter I beg to state that, provided we can rely upon the regular supply of Coal, Coke and Patent Fuel from England, I think that the sum suggested by Colonel Shaw Stewart, say Rupees 3,00,000 will probably be a sufficient amount to [illegible] of under this item as representing the value of this Fuel actually in store

in this Country at any one time. Funds will, I presume, be specially set apart to meet the necessary home expenditure in the purchase and shipment of Fuel.

6. As regards the amount proposed to be allowed for the supply of Wood Fuel, I beg to state that it is altogether inadequate. Wood must be kept in stock many months before it is fit for use as Locomotive Fuel; it is also necessary to keep at all times a large reserve stock in Store, as the Contractors can only supply at certain seasons, whilst the Traffic requirements not unfrequently debar this Department from the use of the Line when required for the purpose of landing up and bringing in Wood Fuel. As shown in the Statement accompanying the Consulting Engineer's letter, the consumption under the head of Wood for the last 12 months amounts to Rupees 2,11,659 and I consider that we should keep very nearly one year's supply at all times in stock; value say Rs. 200,000.

7. With regard to the last para of Colonel Shaw Stewart's letter, it would necessarily be a work of some difficulty to go in detail into the question of the various descriptions of Stores that should be kept in store. I have therefore prepared a Statement showing under the same heads as those given in the Statement which accompanied my letter C.S. 329 of 30th September the description and value

of Stores which I consider to be the least
number which can safely be kept to fulfil
the requirements of this
Branch of the Service. In
addition to the Personal expenses I
have shown a Travelling Stores, I have
also shown the sum of Rupees 50,000 as the
amount to be held necessary to be locked
up on account of the requirements of this
Branch of the Service.

The present Balances must,
I understand be cleared; but
I suppose a Balance must always exist
to some extent, and capable of being
readily reduced, and at the present stock
would not be replaced in full.

Timber.

At this time there is at present very little
Timber in stock and upon Capital Account,
but the stock of Timber may be reduced to
a value of Rupees 2,00,000. I estimate that,
by reducing the annual renewals of Rolling
Stock to new necessary, our stock of
Timber will be reduced to about Rs. 2,00,000
by the close of the year 1873.

Duplicate parts of Engines.

Steam boat Engines. There 9
different classes of Engines, our stock
of duplicates is necessarily very large.
It is required at all times to have
ready for replacement such parts as
wheels and axles, crank axles, Cylinders,
connecting rods, spring gear &c. &c. These
are the only articles of any consequence

amount of locked up Capital; but as
will be readily understood, the possession
of these articles enables us to do with fewer
Locomotive Engines and Tenders; as the
duplicates can be at once made use of and
Engines available which would
otherwise probably have to stand idle for
months, at times when their engines are requiring
repairs renewal or repair.

11. I find that the items Cylinders
wheels and axles, and springs, alone represent
a value of nearly Rupees 20,00,000 out of the
total of Rupees 2,12,761.1.1, standing against
this Department, under the head of duplicate
parts of Engines. The reductions of this sum
will be dependent upon the renewals from
our duplicate stock of parts of Engines as
they fail; and which it may not be considered
necessary to replace. I have put them
down at Rupees 2,00,000.

Carriage and Wagon Examinations.

12. The whole of this was supplied
from England for the construction of
Rolling Stock on Capital Account. None
of it is necessary for purposes connected
with Revenue Account.

Wheels and Axles - Carriage and Wagon.

13. Four hundred and thirty Seven
sets in stock - 100 sets of these will be sufficient
to keep in stock as duplicates for use on Revenue
Account, value say Rupees 50,000.

Springs, Carriage and Wagon, Renewal & Repair

14. The greater portion of these

belong to the above mentioned Carriage and Wagon materials a sum of Rupees 20,000 will be sufficient to allow on Revenue Account for duplicate and spare Springs for Carriages and Wagons.

Tyres Steel and Iron.

15. Our Stock of these does not appear to be excessive considering the consumption which is, and will be heavy for some time to come.

16. The stock at this date stands at less than Rs. 1,00,000 - in value; and I think that sum sufficient provision to meet our requirements.

Iron.

17. Our Stock is large, but includes Cast metal and Pig; and a large quantity of Scrap, old Tyres iron &c., which can be utilized when our Steam hammer is brought into use. I think, however, that the Stock might safely be reduced; and that Rupees 150,000 will be enough to allow in future for this item.

Steel.

18. I think that Rupees 50,000 will be sufficient to provide for our requirements under this head.

Brass and Iron Castings.

19. Our issues of these are very large, and a large stock must be kept up. I think, however, that the quantity at present on hand will suffice to meet our requirements, value say Rupees 80,000 -

Miscellaneous Stores.

20. I do not think that the stock in store under this head can safely be reduced below its present value, say Rupees 2,20,000, exclusive of the sum of Rupees 50,000, which, in the 7th para. of this letter, I have suggested as the sum necessary to be provided on account of the estimated consumption of Stores on Revenue Account to be supplied by the General Storekeeper.

Rolling Stock renewals.

21. To revert to the latter part of the 7th para. of the Consulting Engineer's letter a reference to the periodical Statements showing the construction of Rolling Stock will readily furnish an idea of the amount of depreciation and of the consequent amount of renewals which may be expected as time goes on. The average life of the wood-work of a wagon in England, is, I believe, estimated at 13 years; and, although, when the wood-work has to be renewed the more important parts of the iron-work can often be made use of, heavy and costly repairs to such iron-work, Springs &c. are always necessary, whilst the smaller iron-work, such as minor fittings, bolts and screws have to be entirely replaced.

22. For more ready reference, I forward herewith a statement, which shows in progressive ratio, the age and quantity of our Rolling Stock, by which it will be seen that there are now about

1004 Vehicles (minus such few of them as may have been already renewed) which are in their 13th year.

23. It would be useful and interesting to ascertain, for the purpose of comparison, what is the experience of other and older established Indian Railways as to the life time of Rolling Stock. I do not think that we can reasonably expect our Rolling Stock to obtain a longer average life than that realised by similar classes of stock in England, although many of our Vehicles have lasted beyond that limit, others have not lasted up to it.

24. It is assumed desirable to get all the work that can safely be thrown upon the stock before condemning it; but, on the other hand, it is desirable to take precautions to avoid heavier expenditure in future on this account than is unavoidably necessary.

Locomotive Engines and Tender repairs and renewals.

25. I forward a statement showing the years in which each lot of Engines was erected, and the numbers in each lot.

26. It will be scarcely necessary for me to enter into any explanation regarding the manner that may be anticipated in repairs and renewals. Our Engines run many years with comparatively minor repairs, but after a certain time their most important and expensive parts require renewal. So long as the line was in course of construction, and our stock of Engines periodically received additions of new ones, the average expenditure on the repairs of the whole was necessarily increased in the ratio such additions of new stock bore to the numbers and conditions of the old, due allowance of course being made for the relative age, work, wear and tear and numbers of the older Engines at the time of each augmentation.

27. During the last six years 20 Engines only have been added to our stock, and the whole of the other Engines have either been in, or are shortly coming in, to the shops for heavy Boiler, Firebox, and other costly repairs, which all have been retarded - many of them several times.

Yours faithfully,
Sd/ W. Barlow Wright
Loco: Superintendent

True Copy//
I. W. Mellis
Actg Agent & Manager.

Ed/dd//

Madras Railway
Locomotive Department.

Statement shewing the description and Value of Stores estimated as necessary to be kept in Stock on Revenue Account.

Description of Stores	Value		
Coke Coal Patent Fuel	300,000	"	"
Firewood	20000	"	"
Timber	2,00,000	"	"
Duplicate parts of Engines	2,00,000	"	"
Carriage and Waggon Iron Work	Nil		
Wheels and Axles (Carr: & Waggon)	50000	"	"
Springs Carriage and Waggon - bearing and Buffer	20,000	"	"
Tyres Steel and Iron	100,000	"	"
Iron	150,000	"	"
Steel	50,000	"	"
Brass and Iron Castings	80,000	"	"
Miscellaneous Stores	220,000	"	"
Total	1,570,000	"	"
Add Estimated Value of Stores to be supplied by General Storekeeper	50,000	"	"
Grand Total	1620,000	"	"

(Signed) Wm Barton Wright
Loco: Superintendent
29/11/72.

(True Copy)
J. W. M.

low

Madras Railway
Locomotive Department

Statement shewing the year in which each lot of Engines were erected, and the Number in each lot

Date of Erection	Number of Engines	
1855	5	
1856	17	
1858	4	
1859	5	
1860	7	
1861	16	
1862	8	
1863	13	
1864	1	
1865	4	
1866	26	
1869	5	
1870	15	
Total	126	

(Signed) Wm Barton Wright
Locomotive Superintendent
29/11/72.

(True Copy)
J. A. Jr.

WW.

Madras Railway

Locomotive Department

Rolling Stock Constructed

Description	1855	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	Total
Sleeping Carriages	"	"	"	"	"	"	"	"	"	"	"	4	"	"	"	"	"	"	4
1st Class	1	2	"	"	"	"	"	5	3	"	"	"	"	15	"	"	"	35	12
2d Class	1	3	"	"	"	"	"	"	10	"	10	"	11	50	"	"	"	"	42
3d Class	7	124	2	1	17	35	15	20	10	"	10	"	"	6	"	2	"	"	234
Composites	"	8	"	"	"	"	"	"	"	"	5	"	"	"	"	"	6	"	21
Night Composites	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	6
Open Goods Waggons	10	80	10	"	"	51	"	"	"	"	18	"	"	"	"	"	"	"	169
Open sided Goods Waggons	"	"	"	"	90	"	"	"	30	"	"	"	"	"	"	"	"	"	240
High sided Open Goods Waggons	"	"	"	20	21	20	110	160	190	"	37	92	195	300	170	110	"	"	1836
Ballast Waggons	25	35	"	93	68	16	0	48	20	"	"	160	"	"	"	"	"	"	321
Coke Waggons	5	20	10	10	50	116	19	0	10	"	"	"	"	"	"	"	"	"	440
Road Waggons	"	"	"	7	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1
Cattle Waggons	"	10	20	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	35
Covered Goods Waggons	"	50	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	50
Carriage Trucks	4	"	"	4	"	"	"	"	"	"	"	"	"	"	"	"	"	"	8
Timber Trucks	"	10	"	14	2	4	"	"	"	"	20	"	"	"	"	"	6	19	50
Brake Vans	"	9	5	"	3	8	"	5	5	"	"	20	"	1	"	"	"	10	81
Horse Boxes	"	5	"	5	"	"	"	10	"	"	12	"	"	"	"	"	"	"	40
Water Trucks	"	"	"	"	"	"	"	"	"	"	"	"	1	1	"	2	"	"	4
Inspection Carriage	"	"	"	"	"	"	"	"	"	"	"	"	1	"	"	"	"	"	1
Gun powder Vans	"	1	"	"	2	"	"	"	"	"	"	"	"	"	"	"	"	"	3
Stoke Vans	"	"	"	"	"	"	"	"	"	"	"	"	3	"	"	"	"	"	3
Total Vehicles in year	53	247	47	154	253	250	149	248	278	27	441	272	253	315	174	122	29	35	3607

1855	53	53 Eighteenth year.
56	300	300 Seventeenth year.
57	347	347 Sixteenth year.
58	501	501 Fifteenth year.
59	754	754 Fourteenth year.
60	1004	1004 Thirteenth year.
61	1153	1153 Twelfth year.
62	1401	1401 Eleventh year.
63	1679	1679 Tenth year.
64	1966	1966 Ninth year.
65	2407	2407 Eighth year.
66	2679	2679 Seventh year.
67	2932	2932 Sixth year.
68	3247	3247 Fifth year.
69	3421	3421 Fourth year.
70	3543	3543 Third year.
71	3572	3572 Second year.
72	3607	3607 First year.

/True Copy/
J. W. L.

/Signed/ Jno Barton Wright
Locomotive Superintendent.
29/11/72

No. 4040 GREAT SOUTHERN OF INDIA RAILWAY.

AGENT'S OFFICE,

NEGAPATAM, May 22nd 1871.

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From

THE AGENT,

Great Southern of India Railway,

To The Acting Consulting Engineer
for Railways
Madras

SIR,

I attach hereto a Statement showing the value of all Stores in hand in all departments of this Railway on the 31st December last subdivided under the heads specified in the paper which accompanied your letter No. 110 dated the 14th ultimo. We have no Bridge-Girders, Iron roofing &c in hand, so I have not shown any additional Sub-head.

The only large accumulation of Stores under any one head is that shown under "Permanent Way Material" about 20 Lacs of the total amount (Rs 29½ Lacs) expended represents the value of Iron material sent from England for the Southern Extension.

The material so sent out

is not

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is not one half of what will be required for the permanent way of the Extension, and it does not include any girders for bridges, or plant for Construction purposes - nor yet any Engines or rolling stock iron work.

During the construction of this Extension or until the commencement of laying of permanent way I consider that a sum of about Seventy Lacs will represent the value of Stores placed to debit of an open or Suspense account

After that date the amount can be reduced each half year until fair proportionate sum is reached as suggested by the Government India. I would in each case the working of the preceding half as a guide in fixing the amount for the current half year.

I consider it would be an improvement to send forward English Indian half yearly instead of yearly.

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

Great Southern of India Railway.

Statement Showing the amount expended on account of Stores un-issued & works on the 31st December 1870.

Description	Permanent Way Stores Deptt			Engineering Stores Department			General Stores Department			Stores in Transitu			Total		
Plant	"						1535	6	"				1535	6	"
Permanent Way Materials	196,989	14	6				12,21,797	15	5	6,48,876	12	5	20,67,664	10	4
Locomotives Unrecorded	"														
Rolling Stock Unrecorded	"						96,892	7	"	1737	14	6	98,630	5	6
Fuel	"						73,341	1	8	25,156	7	2	98,497	8	10
Miscellaneous Stores	754	"	10	8,633	11	"	2,99,539	10	"	1,141	3	"	5,10,068	8	10
Salamanca Cargo lost at Sea										1,60,588	7	4	1,60,588	7	4
"War Cloud" Cargo jettisoned										16,758	7	3	16,758	7	3
	197,743	15	4	8633	11	"	18,93,106	8	1	8,54,259	3	6	29,53,743	6	1

Calcutta

Agents

No. 4438 **GREAT SOUTHERN OF INDIA RAILWAY.**

AGENT'S OFFICE,

NEGAPATAM, March 26 1872.

From

THE AGENT,

Great Southern of India Railway,

To The acting Consulting Engineer
for Railways
Madras.

Sir,

Your letter No. 39 of 31st January last. The Government of India intimated that the ultimate sum to represent capital locked up in Stores should be arrived at by half yearly deductions until a fair proportionate amount is reached — and I suggested that upon completion of the Southern Extension these deductions should be fixed upon the working of each preceding half year. It would be difficult now to name precise sums with any degree of accuracy.

The items entered under Permanent way Stores Department and Trichinopoly Stores, do not represent the wants of the open line. The last named belongs to the Southern Extension exclusively, and the first represents only permanent way

way material kept in Store for repairs and possible contingencies. The open line draws its stores from the General Stores Department.

In reply to the second paragraph of your letter I have to explain that the heading of "Returned Stores" covers a very large number of miscellaneous articles. The stock of "Steel Cast or octagon" is large if compared with our present actual expenditure, but this is caused from the advisability of keeping in store a supply of every size we may be called upon at any time to issue sizes which have not before been required. The stock of timber is seasoning. I anticipate the whole will be worked off during the current year.

I have the honor to be
Sir
Your most obt servant

William Bell.

Agent

No. 4768

GREAT SOUTHERN OF INDIA RAILWAY.

AGENT'S OFFICE,

NEGAPATAM, 23d October 1872

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From

THE AGENT,

Great Southern of India Railway,

To

The Consulting Engineer
for Railways
Madras

SIR,

So long as the train service remained at its present limited mileage I think the provision made (in your letter No 450 of the 19th Instant) for Fuel would suffice, but we have now to make arrangements for running special trains of Permanent way material for the Hyderabad State line, and soon for our own Engineering Department. If the estimated traffic in the South is realized we shall have (looking to the reduced train loads which will follow the adoption of the narrow guage, & the trying gradients between Trichinopoly & Madura) to increase the train mileage considerably, & then the provision to be made for Fuel would be insufficient

2. With regard to Permanent way material your estimate would suffice for a line nearly opened (in its entire length) for traffic, but

No 4768

From
The Agent
G.S.O.R.Co.

To
The Consulting Engr.
for Railways

Dated 26th March 1872
Recd 30th "

P.W. 2701/73 dt 8:570.
Re: Permanent
way Plates &c

No.

GREAT SOUTHERN OF INDIA RAILWAY.

AGENT'S OFFICE,

NEGAPATAM, _____ 18

From

THE AGENT,

Great Southern of India Railway,

To

SIR,

but for a line which for near one half its length has been in use (for portions) from 5 to 11 years, I consider a more liberal allowance should be made

3. I wish to suggest the following figures, based upon present requirements, for your consideration

Plant	Rs 5,000.
Permanent way Material	" 115,000.
Locomotive & Rolling Stock	" 80,000.
Fuel	150,000.
Miscellaneous stores	50,000.
	Rs 400,000.

The papers you asked for are herewith returned.

I have the honor to be
Sir
Your most obedient Servant
Cecil Ward Bells.
Agent

Memo of letters which accompanied Consulting Engineer's report to Government dated 17th June 1873 No 29.

From Agent Ga-Dy No 821 - 13th November 1872 with 1 enclosure.

Do Do No 843 - 21st Do Do.

Do Do No 874 - 30th Do Do with 1 enclosure & 3 statements.

To Do Do No 1004 - 3rd Dec. 1872.

From Do Do No 13 - 8th January 1873.

G. S. of L. Railway.

From Agent G. S. of L. Ry No 4040 - 22nd May 1871 with 1 statement.

Do Do No 4438 - 26th March 1872.

Do Do No 4768 - 23rd October 1872.

P.W. 370/73.

M. J/25 Feby/73 L. R: 570.

No. 611 P. W. D.

Proceedings of the Madras Govt.

Read the following:-

From,

The Consulting Engineer for Railways } (M. E. Do. No. 2997 17 Jany/73)

With this letter the Consulting Engineer submits correspondence on the subject of placing a limit to the amount of Guaranteed Capital locked up in Stores on the Madras and Great Southern of India Railways, information on

P.W. 1/

No 612

To

The Secretary to the
Government of India

Sir,

With reference
From Govt of India No 49 A R dated 16 Feby 1871 to the correspondence
" " " 238 " 25 March "
" " " 1096 " 22 Aug 1872 noted in the margin
To " " 2310 " 2 Oct 1872
From " " 1482 A R. 25 Oct 1872 I am directed to forward
the accompanying papers which have been submitted by the Consulting Engineer, together with the Proceedings of Government thereon in regard to the question of placing a limit on the amount of Guaranteed Capital locked

on which was called for in the orders noted in the margin.

G.O. 595 of 1st March 1871
" 1009 of 12 April "
" 2116 of 6th Sept 1872
" 2604 of 5th Nov "

His Excellency the Governor in Council concurs with the Consulting Engineer in the opinion that but little would be gained by postponing the Settlement of the question until after the final completion of the line, and His Excellency considers that for the reasons given the Estimate framed by the Consulting Engineer may be accepted.

HE No of

To
The Consulting Engr
for Railways
x C. f: Rly Letter Index 28/12/72

purchase of Stores on the
locked up in the Madras
and Great Southern of
India Railways

C.S.I.
Lyttn.

C/s 371 [illegible]

Govt. of [1873] Madras
PUBLIC WORKS.

To the Consulting Engr
for Railways
&
To the Secretary to the
Govt of India

Dated

Recd. Encl. 15

G. O. 25 Feby 1873. No 611-612

Nos. 570-571 of 72

Enquiries to be made & the Locked
c/s in these Papers
orders in letter from the
Engr Engr. Submitting
Correspondence in Regard
[illegible] Stores of Rail
[illegible] Madras Railway
[illegible] Stores [illegible]
[illegible]

Desp. 28/2/73 with 35 Encs
Copies of Govt Gos 611 of 1873 -

L: 57°. 72.