

Public Works (1897) Department.

RAILWAY BRANCH.

G.O., No. 466-64 Ry.

DATED 15th July 1897

[Despatch Abstract.]

Trichy Ranipet branch.— Ordered that the report, plans and estimate of the — of the Madras Railway be forwarded to the Govt of India with a letter.

Trichy Ranipet branch.— Forwarding, with remarks, plans, estimates & copies of report on the proposed — of the Madras Ry; recommending the project for the favourable consideration of the Govt of India; and stating that sanction may be received in time to start the construction of the branch in the ensuing season.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
	293	Ry.	24-4-97				
	318	- " -	30-4-97				
	338	- in	12-5-97				

RAILWAY.
Government { 1897 } of Madras.
PUBLIC WORKS.

Recd. } 1897. Enclosures
Regd. } Spare copies

G.O., No. 466 R., 15th July 1897.

JULY.

FURTHER PAPERS.

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

Arcot-Ranipet Branch

Ordered that the report, plans and estimate of the — of the Madras Railway be forwarded to the Government of India with a letter.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following papers:—

Read—letter from the Collector and District Magistrate, North Arcot, to the Secretary to the Commissioners of Land Revenue, dated 17th April 1895, No. 10.

ENCLOSURES.

PETITION from the Residents and Merchants of Wallajapet, Ranipet and Arcot, to the Chief Secretary to Government, Fort St. George, dated Ranipet, 16th April 1895.

We have the honour to bring to your notice the great disadvantage which we, the residents and merchants of Wallajapet, Ranipet and Arcot, are put to by the Madras Railway running at a distance of from 6 to 8 miles from our towns. In the survey of the railway more regard was paid to political or other considerations than to commercial requirements, and, in avoiding large towns such as ours by the distances above mentioned, much traffic, which now goes by carts, would have been carried over the Madras Railway system.

Of the large traffic between Wallajapet, Ranipet, Arcot and Vellore scarcely any goes by rail. This is but one of the many instances which might be quoted in proof of the faulty alignment of the line from a commercial standpoint. To send goods by rail several transshipments from cart to train and train to cart are necessary, thus causing damage to goods which is now avoided by employing country carts, and which we would readily abandon in still greater measure, at less cost to ourselves, and to the benefit of the Madras Railway Company's revenue, if our towns were connected with the main line.

Feeder lines have, we believe, been a success everywhere, and in asking you to construct one from Arcot station to Arcot town through Wallajapet and Ranipet we are confident it will not prove an exception. In addition to the traffic we estimate (*vide* list attached) the line would tap the large sugar and grain growing districts of Timery and Arnee and divert to the Madras Railway that traffic from Wallajapet which now finds an outlet at Kalambur on the South Indian Railway.

A new industry in the shape of a sugar factory is being started at Ranipet, which of itself will bring a traffic of over 100 tons per day.

In conclusion we would invite your attention to the census returns which show that in the last decade the population of Arcot and Wallajapet taluks has increased by close upon 70,000. The population of the towns in the immediate vicinity of the branch line asked for is 40,154. A large passenger traffic may therefore be calculated upon. We beg you will give our petition your early and careful attention.

Estimate of Traffic referred to.

Inwards—	Tons per annum.
Dry hides and skins	...
Tanning bark	...
Chillies	...
Salt	...
Piece-goods and sundries	...
Sugar works	...
Outwards—	...
Ground-nuts	...
Grain	...
Oil cake	...
Oils, tanned hides, &c.	...
Sugar works	...
Total	83,200

Railway maunds 2,327,400.

Resolution—No. 2005, dated 22nd April 1895.

Submitted to Government.

(True Extract.)

(Signed) R. C. C. CARR,
Acting Secretary.

Endorsement No. 1692, Revenue.

Transferred to the Public Works Department (Railway).

(Signed) G. STOKES,
Ag. Secretary to Government.

29th April 1897.

From the Agent and Manager, Madras Railway Company, to the Secretary, Madras Railway Company, London, dated Madras, 18th April 1895, No. 2192.

7. I forward herewith for the information of the Board copy of a numerous signed petition addressed to the Madras Government, praying for the construction of a branch line from Arcot station to Arcot town through Walajapet and Ranipet. I also enclose copy of a letter from the Chief Engineer submitting a plan and estimate of the proposed line, as well as copy of a communication from the Traffic Manager furnishing notes and figures on the traffic prospects. The line should not in my opinion be extended across the river at first or until the trade between Arcot station, Walajapet and Ranipet has been tested.

8. It is probable that the Government may address us shortly on the subject of the petition. The branch line in my opinion would be a valuable feeder to the South-West main line.

From the Consulting Engineer for Railways, to the Agent and Manager, Madras Railway, dated Madras, 24th April 1895, No. 1365.

With reference to paragraph 7 of your letter, No. 2192, dated 18th April 1895, to your Board, I have the honour to request that I may be furnished with information on the subject.

From the Agent and Manager, Madras Railway, to the Consulting Engineer for Railways, Madras, dated 29th April 1895, No. 8314/414.

Referring to your letter, No. 1365, dated the 24th instant, I have the honour to inform you that a copy of the petition addressed to the Madras Government praying for the construction of a branch line from Arcot station to Arcot town was furnished to me and transmitted to the Board by the last mail, no copy having been retained in this office. I enclose copies of the letters from the Traffic Manager and the Chief Engineer dealing, respectively, with the traffic prospects and cost of construction of the proposed line.

ENCLOSURES.

From the Traffic Manager, to the Agent and Manager, Rayapuram, dated Madras, 26th February 1895, C. No. 1261 A. and M./23809.

[Your No. 8314/1594, dated 20th February 1895.]

On the 26th January I visited Arcot town, passing through Wallajapet and Ranipet in connection with the application for a branch line to the Ranipettai Sugar Factory, but I was unable to send you a copy of my notes on the proposed branch until I had obtained certain maintenance figures from the Chief Engineer. I now have the pleasure to forward a copy of my notes and three statements A, B and C of the approximate financial results from such a branch. If we take Nellikuppam as an example the line should have brilliant prospects.

Notes on an application for a branch line from Arcot station to Ranipet.

The application for this branch line emanates from the Directors of the Commercial Bank, I understand, on account of the Arcot sugar works. The Arcot sugar works and distillery are being financed by the Commercial Bank and managed by Mr. Thorburn; and as approximately two-thirds at least of the goods traffic which may be expected to be carried over such a branch (if constructed) would be on behalf of these works, the extent of their traffic will decide whether such a project would give a satisfactory return on the necessary outlay. I passed through Wallajapet, Ranipet and Arcot on the 21st instant, but did not traverse the length of the proposed route as this can only be done on horse back or on foot, and I had not then the time to spare for commenting upon the proposed alignment, the chief object of my journey being the sugar factory at Ranipet.

2. At these works I was shown the foundations which are already laid for a new building to accommodate new machinery designed to double the output to commence with. This machinery, Mr. Thorburn informed me, has been ordered from England and should be fitted up in the new building and working before the end of 1895. October is named as the date for completion. Six months later according to the Manager the works will be in "full swing."

3. They are designed to turn out at the commencement 20 tons of refined sugar per day.
4. To manufacture 20 tons of refined sugar 46 tons of cane.

4. To manufacture 20 tons of refined sugar 46 tons of jaggery are required and this will, for a considerable time, come from Palghat, as large stocks are already being brought up in that district and stored, so that there need be no necessity for the machinery to stand idle for want of raw material on which to work.

5. To keep the machinery going 50 tons of wood or 25 tons of coal per day will be required.
6. At present 3 tons of molasses per day are being forwarded to Sulu.

6. At present 3 tons of molasses per day are being forwarded to Salem.

7.-A As shown on statement "A" attached the total receipts on this traffic would be Rs. 9,509-2-0 for a period of 12 months.

8. Taking the South-West line passenger figures as a basis the receipts for passenger traffic might be taken as Rs. 15,396 for the 7 miles and probably Rs. 5,094 as a moderate estimate of the goods traffic over the branch other than that to and from the sugar works giving a total of Rs. 30,000 (*vide* statement B).

9. If the line is made it should undoubtedly run across the river bed into Arcot town, for there seemed to be a stream of foot passengers passing between Ranipet and Arcot, also between Wallajapet and Ranipet and there should be a good local passenger traffic between those places.

10. These three towns would, in all probability, supply a very much larger area of the surrounding country with grain and other merchandise if a railway passed through them; but, as stated in the traffic canvasser's report of 20th August 1894, there is no particular production of the places themselves as far as weight is concerned.

11. At the last census the populations of the three towns were in 1891—

Wallajapet	...	...	...	...	...	...	...	...
Ranipet	...	...	...	...	...	...	...	10,485
Arcot	...	...	...	...	...	...	...	8,000
There is a large quantity of refined sugar imported into ...								10,928

12. There is a large quantity of refined sugar imported into India from Mauritius and frequently there is an excellent market and a large profit to be made on the same when manufactured.

13. The Nellikuppam sugar factory has grown rapidly and from a population of 10,000 in 1950 to 35,000 in 1960. The factory has grown with the sugar industry to 35,000.

14. The South Indian receipts at Nellikuppam station have increased to 1000 tons per annum for jaggery treacle and sugar traffic only. Population of 5,000 this

15. The Directors of the Commercial Bank are said to look forward to the establishment of a large industry at Ranipet if railway facilities are given and the "workshop" established there turned into a company.

16. Statement "B" attached shows the approximate financial results of the west line on a capital of 4 lakhs, the estimated cost of this branch—

17. Statement "C" shows the approximate financial results based on the estimate of 7 miles of our southern branch—vide paragraphs 7(a) and 8.

18. There is no reason, as far as I can see, why the Ranipet sugar should be based on the actual figures taken as rapidly as did that of Nellikuppam.

as rapidly as did that of Nellikuppam.

A.

	RS.	A.	P.
Refined sugar 6,000 tons or 163,333 maunds at 10 pies rate for 7 miles.	@ 2.59 pies per maund=	2,203	4 8
Jaggery 15,000 tons or 408,333 maunds at Palghat mileage 4.53 for 7 miles	@ 1.18 pies per maund=	2,509	8 9
Molasses 1,000 tons or 27,222 maunds at Salem mileage 6.02 for 7 miles.	@ 1 pie per maund =	141	12 6
Wood, fuel, 15,000 tons or 4,08,333 maunds at Ambur mileage 6.80 pies for 7 miles	@ 1.76 pies per maund=	3,743	0 10
Spirits, country, 480,000 gallons (10 lb. a gallon) or tons 2,142-17 or 58,333 maunds at 13.61 pies rate for 7 miles	@ 3 pies per maund =	911	7 3
	Total ...	9,509	2 0

B.

	RS.	RS.
Actual local coaching receipts of 7 miles the south-west line		15,396
Goods traffic at actual rates to and from the Ranipet Sugar Works (<i>vide</i> Traffic Manager's notes after visiting Ranipet, <i>vide</i> statement A)	9,510	
Estimated goods traffic (over the 7 miles) for the public generally	5,094	
		14,604
Total	...	30,000

Cost of working 7 miles is '0024 of the remainder of system. Madras Railway earnings Rs. 1,03,92,255. Expenditure Rs. 53,19,183 Percentage of expenditure on the earnings is Rs. 51'2.

New line earnings Rs. 30,000. Expenditure Rs 15,360. Percentage of expenditure on the earnings is Rs. 51·2.

Receipts for 7 miles are .0028 of the remainder of system.

Profit per cent. on a capital of 4 lakhs of rupees per annum is Rs. 3·7.

C.

	RS.
Actual coaching traffic dealt with at Arcot calculated as for 7 miles.	25,747
Actual goods traffic dealt with at Arcot for 7 miles calculated at the average goods rate or 10 pies	9,990
Total	35,737

Cost of working 7 miles is '0037 of the remainder of system. Madras Railway earnings Rs. 1,03,92,255. Expenditure Rs. 53,19,183. Percentage of expenditure on the earnings is Rs. 51·2.

New line earnings Rs. 35,737. Expenditure Rs. 19,620. Percentage of expenditure on the earnings is Rs. 54.9.

Receipts for 7 miles are .0034 of the remainder of system.

Profit per cent. on a capital of 4 lakhs of rupees per annum is Rs. 4.0.

From the Chief Engineer, Madras Railway Company, to the Agent and Manager, dated 27th September 1894, No. 207/989 C.

[Plan and estimate of proposed branch line from Arcot station through Walajanagar and Ranipet to Arcot town.]

In compliance with your letter, No. 8314/6983 of 13th August 1894, I forward herewith an approximate estimate (Rs. 4,25,115) with plan and section of the proposed branch (7 miles long) from Arcot station to Arcot town passing through Walajanagar and Ranipet. The above figure gives the cost per mile as Rs. 60,731 including the value of land.

2. The proposed branch is necessarily somewhat tortuous, owing to the positions of Walajanagar and Ranipet in relation to the existing station at Arcot.

The distances are as follows:—

Arcot station to Walajanagar	...	...	...	...	...	MILES.
Walajanagar to Ranipet	...	...	...	...	...	3½
Ranipet to Arcot town	...	...	...	...	...	2½
						1
Total	...	...	...	...	...	7

In the alignment, curves of ½ mile radius and a ruling gradient of 1 in 100 have been secured; the average heights of bank and cutting are 8 feet and 3½ feet, respectively, and owing to the proximity of tanks and irrigated land a considerable amount of waterway will be necessary involving the construction of several bridges of 20 feet and 30 feet spans.

3. Provision has been made for a third-class station at Walajanagar, Ranipet and Arcot town and it is presumed that this will suffice at the outset. The cost of these, including the necessary junction arrangements at Arcot station, is estimated to cost Rs. 36,000.

4. It is not proposed to construct a bridge across the Palar river (here half a mile wide), but to lay the line in the bed of the river close to, and on the upstream side of, the substantial masonry causeway already constructed by Government for the accommodation of carts. By covering the track in this position with broken stone, the permanent-way would be fully protected during floods, which would simply flow over the rails rendering the road impassable for short intervals during which the trains would have to stop at Ranipet as a temporary terminus. This interruption to traffic, it is anticipated, will not last for more than two or three days at a time, and the inconvenience will not be found serious.

5. As it is understood that no additional engines or rolling stock will be required for working this short branch, no provision under this head has been made. Fencing also has been omitted from the estimate as it is assumed that trains will run during the day only. Excluding the price of land, which will be provided free, the actual cost to the Company of the branch may be taken as Rs. 4,00,000 or Rs. 57,000 per mile approximately.

PROPOSED Line from Arcot Station to Arcot Town *via* Walajanagar and Ranipet.

Heads of accounts.		Total cost in rupees.				Notes.
		Sub-heads.		Main heads.		
		Total cost.	Rate per mile.	Total cost.	Rate per mile.	
I. Preliminary expenses ..	..	Rs. ..	Rs. ..	Rs. 2,800	Rs. 400	
1. Survey expenses ..	..	..	..	..	..	
2. Plant ..	..	} 2,800	400	..	..	
3. Establishment ..	..					
II. Land ..	..	..	..	..	..	
III. Formation ..	..	27,613	4,281	27,613	4,281	(6.45 miles).
1. Earthwork ..	..	..	..	80,211	11,459	
2. Cutting laterite ..	..	53,836	10,353	..	..	5.20 mile, average bank 8 feet.
..	..	18,875	16,100	..	..	1½ mile only, average cutting 6½ feet.
3. Road diversion ..	..	7,500	5,000	..	..	1½ mile.

Proposed Line from Arcot Station to Arcot Town *via* Walajanagar and Ranipet—cont.

Heads of accounts.	Total cost in rupees.				Notes.
	Sub-heads.		Main heads.		
	Total cost.	Rate per mile.	Total cost.	Rate per mile.	
	RS.	RS.	RS.	RS.	
IV. Bridge work	..	..	72,920	10,403	0.55 mile only Pālār river bed ; owing to dry weather traffic, no bridge is required and the permanent-way will be laid on a bed of dry rubble stone across bed of river.
1. Large bridges	14,500	26,364	..	..	
2. Minor bridges	58,320	9,042	1,873	268	
V. Fencing	..	..	..	..	Owing to day train service only, fencing is not required.
1. Fencing	1,600	229	..	..	
2. Road crossing	273	39	..	..	
3. Mile and gradient post and boundary stones.	2,380	340	2,380	340	Ballast consists of fine laterite and sand.
VI. Electric Telegraph	..	..	1,81,125	25,875	
VII. Ballast and Permanent-way ..	29,645	4,235	..	..	
1. Ballast	1,51,480	21,640	36,000	5,143	Three third-class stations at Rs. 10,000 each and widening platform of Arcot station, Rs. 6,000.
2. Permanent-way	..	..	..	..	
VIII. Stations and buildings	36,000	5,143	..	..	
1. Stations, offices and widen- ing platform of Arcot sta- tion.	..	..	12,250	1,750	
2. Staff quarters	..	..	..	..	
3. Station and machinery	..	..	..	..	
IX. Plant	..	..	..	..	
1. Engineering	12,250	1,750	..	..	
2. Locomotive	..	..	..	..	
3. Carriage and wagon	..	..	8,043	1,149	
4. Station and office furniture.	..	..	..	..	
X. Ferries, &c.	..	..	..	..	
1. Ferries	..	..	..	..	
2. Floating bridges	..	..	..	..	
XI. Rolling stock	..	..	..	..	
1. Locomotive	..	..	..	..	
2. Carriage and wagon	..	..	..	..	
XII. General charges	..	..	..	..	
1. Direction	..	..	..	..	
2. Engineering	8,043	1,149	..	..	
3. Stores	..	..	..	..	
4. Audit and accounts	..	..	..	..	
5. Medical and sanitation	..	..	..	..	
Total expenditure	..	..	4,25,115	7.00	
Length in miles	..	..	..	60,731	
Total rate per mile	..	..	..	..	

From the Under Secretary to the Government of India, Public Works Department (Railway Construction), to the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Calcutta, the 1st March 1897, No. 352 R.C.

With reference to the correspondence ending with Government of India letter, No. 24 R.C., dated 6th January 1897, I am directed to enquire when the results of the survey of the Arcot-Ranipet branch carried out in 1895-96 may be expected, as well as the results of the further survey recommended by the Consulting Engineer for Railways, Madras, and to request that the submission of the project may be expedited.

Endorsement No. 931.

Copy forwarded to the Agent and Manager, Madras Railway, for favour of early report, with reference to G.O., No. 28 R., dated 14th January 1897.

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

11th March 1897.

Reminder from the Secretary to the Government of India, Public Works Department (Railway Construction), dated Simla, the 13th April 1897, No. 352/1 R.C.

Extract from Agent's letter to Board, Madras Railway, dated 15th April 1897, No. 2304.

16. *Arcot-Ranipet Branch*.—I beg to forward a report (with plan) from the Acting Chief Engineer on the alignment which has been finally decided as the best for the proposed Arcot-Ranipet branch, about $4\frac{1}{2}$ miles in length. It will be observed that owing to recent modifications authorised in standard dimensions, the Acting Chief Engineer has been able to reduce the quantity of earth-work and bridging; and by using second-hand rails, the estimated cost per mile is now given as Rs. 56,715; or taking round numbers, it is calculated that the branch, including the short siding into the Distillery and Sugar Works can be constructed and equipped for Rs. 2,50,000, with the prospect of a return of over 7 per cent.

In paragraph 22 of your letter, No. 920, the Board state that they are prepared to construct this branch as part of the Madras Railway system, and propose to provide the necessary capital out of the Company's sterling borrowing powers by the issue of 3 per cent. debentures. Before, however, application can be made to Government to ascertain if the above terms will be accepted, it will be necessary first to obtain the Board's sanction and approval to the proposed outlay of Rs. 2,50,000. This, it is requested, may be communicated to me by telegraph by the words "Arcot construction sanctioned," if approved; or "Arcot not sanctioned," if not approved. This request is made to enable this project to be submitted in a complete form to the Government of India Conference by the 15th May next as prescribed by that Government.

Telegram from the Consulting Engineer for Railways, Madras, to the Agent and Manager, Madras Railway, dated 26th April 1897, No. 5-C.

From the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 27th April 1897, No. 293 R.

With reference to your letter, No. 352-R.C., dated 1st March 1897, and subsequent reminder requesting early submission of the project for the construction of the Arcot-Ranipet Branch Railway, I am directed to state that the information required will be sent early next month when the Agent and Manager expects to receive his Board's reply on the subject.

From the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 30th April 1897, No. 318 R.

In continuation of my letter, No. 293 R., dated the 27th instant, I am directed to forward a copy of a letter from the Agent and Manager, Madras Railway Company, No. 8314-401, dated the 27th April 1897, with its enclosures.

The enclosures consist of a report, No. 514-C., dated 13th April 1897, by the Company's Officiating Chief Engineer on the proposed short branch line to the Palár river bank at Ranipet, just opposite Arcot City, together with a plan and an estimate of its cost.

The Agent still awaits his Board's sanction to the project, and as soon as I learn of their having replied to him I shall wire you the result.

Meanwhile it is thought advisable to send forward the information now available, in the belief that it will probably serve your present purpose, viz., the discussion of the scheme at the coming Conference. Should the proposed branch commend itself to the Board and to the Government of India it shall in due course, when ready, be sent forward in the prescribed project shape.

I am desired to add that, as regards this and all other projects for railway extension in this Presidency, the Government of India are being addressed in a separate letter in which the views of this Government, as to the advisability or otherwise of undertaking each of the projects, shall in due course be communicated.

ENCLOSURES.

From the Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 27th April 1897, No. 8314/401.

With reference to your endorsement, No. 934, dated 11th March 1897, on letter from the Government of India, No. 352 R.C. of the 1st idem, I have the honour to forward herewith 90 copies of the report from the Acting Chief Engineer on the proposed branch line from Arcot to Ranipet, about $4\frac{1}{2}$ miles in length, together with eight copies of the plan. It will be observed that the estimated cost per mile is now given as Rs. 56,715 or the total cost of the branch is in

round numbers estimated at Rs. 2½ lakhs of rupees, with the prospect of a return of over 7 per cent. I have submitted copies of the report to my Board with the request that their sanction to it may be communicated to me by telegraph.

From the Acting Chief Engineer, to the Acting Agent and Manager, Madras Railway Company, dated Madras, 13th April 1897, No. 514 C.

Arcot-Ranipet Surveys.

In accordance with the request contained in your No. ⁸³¹⁴/₃₉₁₇ of 10th current, I beg to submit the following report on the Arcot-Ranipet Surveys.

2. During the past two years several projects for the extension of the Madras Railway to Ranipet on the north bank of the Palár river have been investigated but, owing to the large outlay which their construction would involve, only three of the several schemes—distinguished in this report as Branch A, Branch B and Branch C—are practicable.

3. Branch A is a proposal for a line leaving Arcot station at the east end proceeding south to Walajanagar and then running west to a terminus at Ranipet, the total length of the line being 6.02 miles and the estimated cost, including a provision of Rs. 88,000 for rolling stock, Rs. 6,83,559 or Rs. 1,13,544 per mile.

4. Branch B is a scheme for a direct line from Arcot station to Ranipet as suggested by Mr. Hodson, when Consulting Engineer for Railways to the Government of Madras. The length of this branch would be only 4.17 miles, but the earthwork would be heavy and the cost of bridging considerable. Comparative estimates for this route are shown in the statement attached, the 1st includes rolling stock and new rails and amounts to Rs. 4,60,693 or Rupees 1,10,478 per mile; the 2nd omits rolling stock, and certain portions of the station machinery stated by the Locomotive Superintendent and Acting Traffic Manager to be unnecessary and allows for the road being laid with second-hand rails. The latter estimate is thereby reduced to Rs. 3,43,137 or Rs. 82,287 per mile.

5. Branch C is a route, proposed by Mr. E. W. Stoney when Acting Chief Engineer, possessing material advantages over each of the projects referred to above. The line runs along the watershed following closely the existing public road from Arcot station to Ranipet and, owing to this very favourable alignment, the earthwork is exceedingly light and the bridging, with the exception of 1—20 feet and 1—30 feet opening, is confined to small culverts and pipe drains.

The length of this line is 4.35 miles, the ruling gradient being 1 in 100 and the sharpest curve 1,200 feet radius.

The banks will be constructed to a top width of 16'-6", the Government of India having recently issued revised standard dimensions which permit of banks being reduced from 20 feet to this width at formation level.

The gauge of the line will be 5'-6" and the permanent-way will consist of 20 feet iron double-headed rails (second hand) weighing 84 lb. per lineal yard with new pot sleepers, tie bars, cotters and gibs. An ample supply of sand ballast is available at the Poiney river at 71½ miles on the Madras Railway, moorum gravel also being procurable in the vicinity of the proposed line.

6. There will be two stations only—the Junction at Arcot and the new station at Ranipet. At the former only such additions and alterations will be made to the existing Madras Railway station as will enable it to be used for the two lines and will be required for the proper interchange of traffic. On the opening of the proposed branch most of the passenger and goods traffic now received at Arcot station will be transferred to Ranipet and it will therefore be possible to remove some of the sidings and dismantle a portion of the buildings at the former station and utilize the materials for the new works.

At Ranipet it is intended to construct a permanent station house, platform 600 feet in length, goods godown and loading platform, quarters for the station staff and the siding accommodation necessary to deal with the whole of the traffic anticipated. If approved, the proprietors of the Arcot Sugar Works also desire to construct at their own cost the siding into their works shown on the plan accompanying this report.

7. The total estimate for this branch is Rs. 2,46,712 or Rs. 56,715 per mile and assuming that the following figures, given by the Acting Traffic Manager in his letter, No. C/1261 A. and M. of 15th March 1897, of probable traffic returns are correct:—

- (1) Actual coaching traffic dealt with at Arcot calculated as for 5 miles— $\frac{2}{3}$ of Rs. 25,747 = Rs. 18,391
- (2) Actual goods traffic exclusive of that appertaining to the Sugar Works— $\frac{2}{3}$ of Rs. 8,618 = Rs. 6,156

(3) Goods traffic in connection with the Sugar Works guaranteed by Mr. Thorburn (*vide* his letter, No. S/2814, dated 23rd November 1896) Rs. 15,000

Total Gross Earnings ... Rs. 39,547

Less—Working expenses at 51·2 of earnings, as on the Madras Railway Rs. 20,248

Net Receipts ... Rs. 19,299

the net earnings calculated at Rs. 19,299 would give a return of 7·82 per cent. on the Capital outlay.

8. A comparative statement showing abstracts of the estimates for the three branches, and plan and section of Branch C are attached.

(Signed) H. J. THOMPSON, M.I.C.E.,
Acting Chief Engineer.

Arcot-Ranipet Extension 5' 6" Gauge.

Comparative Statement showing Abstracts of Estimates.

Alternative Routes.

Head of Accounts.	Branch A, 6·02 miles.	Branch B (Proposed by Mr. Hodson).		Branch C (Proposed by Mr. Stoney).
		Original estimate 4·17 miles.	Revised estimate omitting rolling- stock, &c., 4·17 miles.	
Preliminary expenses. ..	1,678	1,164	1,164	1,214
Land	40,787	20,502	20,502	4,284
Formation	1,20,203	95,094	92,341	30,022
Bridge work	1,04,055	34,652	34,652	13,957
Fencing	37,255	1,481	1,481	1,481
Road crossing		7,809	7,809	3,408
Mile and Gradient Posts ..		160	160	207
Electric Telegraph	5,217	3,250	3,250	2,984
Ballast	51,574	20,423	17,463	17,598
Permanent-way	1,65,697	1,40,227	1,24,428	1,35,271
Stations and offices	18,810	10,390	10,390	10,390
Workshop and Store buildings.	814	404	404	404
Staff Quarters	8,392	5,063	2,071	2,071
Station Machinery	20,649	13,956	8,904	8,904
Plant, Engineering	2,142	2,142	2,142	2,142
Station and office furniture ..	3,885	1,575	1,575	1,575
Rolling-stock	88,000	88,000	..	..
General charges	14,401	14,401	14,401	10,800
Total	6,83,559	4,60,693	3,43,137	2,46,712
Rate per mile	1,13,544	1,10,478	82,287	56,715

MADRAS,
13th April 1897.

(Signed) H. J. THOMPSON, M.I.C.E.,
Acting Chief Engineer.

From the Consulting Engineer for Railways, Madras, to the Agent and Manager, Madras Railway Company, dated Ootacamund, 30th April 1897, No. 7/O.

I have the honour to acknowledge the receipt of your letter No. 8314/401, dated the 27th April 1897, and to inform you that a copy of your letter and of its enclosures has gone forward to the Government of India so that it may be considered at the coming Conference. I shall be glad to be informed by wire of your Board's views as soon as you receive them.

Meanwhile will you be good enough to put Mr. Stoney's 2½ lakhs project into the regular project form furnished by the Government of India, with such modifications of his figures as are necessitated by your entering the Arcot station, as indicated in the latest map and as agreed to at our verbal discussion on the subject.

From the Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 10th May 1897, No. 8314/450.

With reference to your letter, No. 7/O., dated 30th ultimo, I have the honour to inform you that as desired in paragraph 1 of your letter, I advised you by telegraph this morning that I had received from the Board a telegram informing me that the Arcot construction had been sanctioned. This telegram I understand to mean that they approve of Mr. Stoney's proposals for the construction of the Arcot-Ranipet branch at an estimated expenditure of Rs. 2,50,000. Will you kindly advise the Government of India of the receipt of this sanction from the Board?

The estimate is being prepared in the regular project form for the information of Government as desired by you.

From the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 12th May 1897, No. 338 R.

In continuation of my letter No. 318 R., dated the 30th April 1897, on the subject of the Arcot Branch, Madras Railway, I am desired to forward, for the information of the Government of India, a copy of a telegram, dated 10th May, from the Agent, Madras Railway Company, intimating that the Board have sanctioned the branch.

2. The opinion of this Government in regard to the proposed branch has been communicated to you in paragraph 5 of my letter No. 332 R., dated the 10th May 1897.

3. This Government will be glad to learn of the Government of India's general approval of the adoption of the cheapest scheme, viz., that proposed in the last column of page 5 of the enclosure to the Madras Railway Company's Agent's No. 8314/401 of April 27th, which reached you under cover of my letter above referred to.

4. Meanwhile the Agent has been requested to put this last scheme into regular project shape with full details showing his proposals for entering Arcot station.

5. As regards the provision of funds for this short branch, I am to say that it seems scarcely worth while to incur the trouble and expense involved in the levying of the Separate Revenue accounts which will be necessary if it be decided that it must come under the new, or what may be called the Calicut-Cannanore term.

ENCLOSURE.

Telegram from the Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Rayapuram, 10th May 1897.

Have received Board's telegram sanctioning construction of Arcot-Ranipet branch. Letter follows.

From the Under Secretary to the Government of India, Public Works Department (Railway Construction), to the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, the 22nd May 1897, No. 855 R.C.

With reference to your letter No. 318 R., dated 30th April 1897, forwarding an approximate estimate for the Arcot-Ranipet branch, I am to point out that if the length of the line be taken as 5 miles for charge and the passenger fares 1½ pies per mile and the goods rates 12 pies per ton, 470,809 passengers and 67,699 tons of goods would have to be carried to work up to the estimated earnings of Rs. 18,391 and Rs. 21,156, respectively.

2. As the outwards and inwards traffic at Arcot in 1896 (from the Madras Railway revenue statistics) amounted to 318,498 passengers and 925,300 maunds (34,270 tons) of goods, I am to ask that the traffic estimate may be reconsidered and this large increase justified, the method of calculation being also explained.

3. It would *prima facie* appear more probable that a portion at least of the passengers would continue to walk to the junction.

No. 46/O., 4th June 1897.

Copy forwarded to Agent and Manager, Madras Railway, for favour of remarks with reference to his letter, No. 8314/401, dated 27th April 1897.

From the Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 1st June 1897, No. 8314/523.

With reference to paragraph 2 of your letter No. 7/O., dated 30th April 1897, I have the honour to submit the plan and estimate of the Arcot-Ranipet branch in the regular form prescribed by the Government of India.

2. The documents accompany this letter consist of —

Index plan and section to scale of 1 inch to 1 mile.

Plan and section to the scale of 400 feet to 1 inch.

Plan showing junction arrangements at Arcot to the scale of 100 feet to 1 inch.

Ninety copies of the report and estimate of the cost of construction.

Bound up
in one book.

3. I shall be glad to be favoured with the early instructions of Government conveying sanction for the construction of this branch, to which the Board have accorded their approval, which is communicated in paragraph 13 of the Secretary's letter No. 953 of 7th May 1897, a copy of which is attached for your information.

ENCLOSURE.

Extract from a letter from the Secretary, No. 953, dated 7th May 1897.

13. *Arcot-Ranipet Line.*—Adverting to paragraph 16 of No. 2304, with which you forward a report (with plan) from the Acting Chief Engineer on the proposed Arcot-Ranipet line, I am directed to say that the Board entirely approve the direct and simple alignment now fixed upon and is estimated to cost Rs. 57,000 a mile. At this rate the whole expenditure for the 4½ miles will amount to about 2½ lakhs.

Subject to the approval of Government, the Board sanction the construction of this short branch as part of the system of the Madras Railway.

As to the provision of the necessary funds for its construction, the amount to be provided will not exceed £16,000. This Capital can be raised by the issue of Guaranteed Debentures. The question of exchange is of insignificant importance, and it is improbable that the Government will desire the same terms to be carried out at those agreed upon for the Calicut-Cannanore Extension, or that the Company will be required to keep separate Capital and Revenue accounts for so small an affair. At the same time the Board are quite prepared to consider any proposals the Government may think fit to make in this direction.

The following telegram was this day sent to you with reference to the above:—

"Arcot construction sanctioned."

(True Extract.)

(Signed) H. C. WEST,
Acting Agent and Manager.

From the Consulting Engineer for Railways, Madras, to the Agent and Manager, Madras Railway Company, dated Ootacamund, 10th June 1897, No. 54/O.
I beg to acknowledge the receipt of your letter, No. 8314/523, dated the 1st June 1897, submitting the Arcot-Ranipet project, and in reply to remark as follows.

2. I return the tracings and shall be glad if you can see your way to alter the Arcot junction arrangements as roughly sketched in pencil (with 300 feet curves for 1 in 8½ crossings, or nearest). The object of this alteration is that the facing points far out on the main line in the Madras direction may be got rid of, and that vehicles may be easily shunted and marshalled from the branch to any one of the main line sidings with the minimum of block to the main line traffic. If the temple must be left intact your Chief Engineer will doubtless be able so to arrange things. All that I specify for is that the points on to the main line may be trailing as shown in pencil, and as ~~new~~ as may be to the present ~~last~~ facing points.

3. The siding which I have marked A in pencil seems to me to be objectionable. A few hundred feet of piping from the tank to a water column on this branch ought to obviate the necessity of branch engines crossing over by that route and so fouling the main line. This branch engine could apparently do all shunting necessary on the main line sidings ready for the branch traffic to be taken in charge by the main line engines, and this can apparently be all ~~done~~ *done* ~~via~~ the ~~last~~ cross over as shown in pencil near the temple.

4. Signals will need corresponding alteration, and I shall be glad of a memorandum of the necessary modification of the estimate, as well as of the probable cost of a small branch engine shed, which will apparently be needed. If, as seems probable, it is your intention to work the branch with a tank engine, no turn-table will be necessary.

5. It seems to me that hereafter the branch terminus must be called Arcot, and that the junction, a place in the future of very minor importance might be called Ammur junction.

From the Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 18th June 1897, No. 584.

In reply to your endorsement No. 46/O., dated 4th June 1897, on letter from the Government of India, No. 855 R.C., dated 22nd May 1897, I have the honour to forward herewith copy of a letter, dated 15th instant, with enclosures from the Company's Traffic Manager in which the information called for is furnished.

I would refer you to this office letter, No. 8314/414 of the 29th April 1895, in reply to your No. 1365 of the 24th idem.

ENCLOSURES.

From the Acting Traffic Manager, Madras Railway Company, to the Acting Agent and Manager, Rayapuram, dated Madras, 15th June 1897, No. A. 6/1261/29701 A. and M.

With reference to your endorsement No. 8314 of 11th instant, on Memorandum No. 46 O., dated 4th June 1897, from the office of the Consulting Engineer covering copy of letter from the Government of India, Public Works Department, No. 855 R.C., dated 22nd May 1897, to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, I beg to inform you that the figures shown in paragraph 1 of the Government of India's letter, viz., Rs. 18,391 and Rs. 21,156 for passenger and goods traffic, respectively, are based upon the statement C which accompanied Mr. Read's notes sent you with this office letter of 26th February 1895 and which relate to the period from 1st July 1893 to 30th June 1894, revised however to 1895 and which include the goods traffic guaranteed by the Arcot Sugar Works. I attach a statement (A) showing in detail how the figures were arrived at.

2. As regards paragraph 2 of the Government of India's letter I find in taking the 1896 figures and working them out on the same basis, that a sum of Rupees 39,028 is arrived at or practically the same as the figures quoted. The figures are shown in detail in statement (B) enclosed.

3. The passenger fare taken has been 2 pies per mile that being the present third-class fare. Our experience of Coimbatore and Palghat, which are branches under much the same conditions, does not show that any considerable proportion of the passengers walk from the junction. I think the figures of Rs. 15,000 for the sugar factory traffic is well within the mark and when railway communication to their door is provided, it will probably be largely increased.

STATEMENT A.

As per statement C enclosed with letter of 26th February 1895.

		Revised Figures.	
(Period 1st July 1893 to 30th June 1894.)		RS.	RS.
1. Actual coaching traffic dealt with at Arcot calculated as for 7 miles.	25,747	25,747	18,391
2. Actual goods traffic dealt with at Arcot for 7 miles calculated at the average goods rate or 10 pies.	9,990	9,990	
Total ...	35,737		
Details.			
1. First-class passengers 141 at 12 pies per mile for 7 miles	62	8,618	6,156
Second-class passengers 494 at 6 pies per mile for 7 miles	108		15,000
Third-class passengers 350,774 at 2 pies per mile for 7 miles	25,577		39,547
Total ... No. 351,409	25,747		
2. Total weight of goods traffic in and out of Arcot station, 27,400 tons at 10 pies per ton per mile for 7 miles	9,990		

STATEMENT B.

(Period 1st January 1896 to 31st December 1896.)

Total number of passengers to and from Arcot station.		RS.	RS.
First-class number 621 at 12 pies per mile	...	194	
Second-class number 1,082 at 6 pies per mile	...	169	
Third " " 3,16,795 at 2 pies per mile	...	16,500	
Total No. ... 318,498			16,863
Weight of goods traffic in and out dealt with at Arcot.		RS.	
Total tonnage of goods	...	34,270	
Less sugar works traffic	...	6,757	
Actual goods traffic exclusive of that belonging to the sugar works	...	7,165	
27,513 tons at 10 pies per mile for 5 miles	...	15,000	
Goods traffic for the sugar works guaranteed	...		
Total ...		39,028	

From the Under Secretary to the Government of India, Public Works Department (Railway Construction), to the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, the 11th June 1897, No. 982 R.C.

With reference to your letter No. 333 R., dated 12th May 1897, I am directed to convey the general approval of the Government of India to the adoption of the cheaper scheme proposed for the construction of the Arcot-Ranipet branch of the Madras Railway, viz., for the line 4.35 miles long at a cost of Rs. 2,46,712 being at the rate of Rs. 56,715 per mile.

2. I am to request that, in submitting this scheme for a cheap line in regular project shape, care may be taken that the traffic statistics asked for in Government of India letter, No. 855 R.C., dated 22nd May 1897, may be accurate and reliable and accepted by the Government of Madras before being furnished to the Government of India.

3. The question asked in paragraph 5 of your letter will be considered on receipt of the views of the Board of Directors on the subject.

From the Consulting Engineer for Railways, to the Agent and Manager, Madras Railway, dated Ootacamund, 30th June 1897, No. 80/O.

With reference to your letter, No. 584, dated 18th June 1897, and enclosures, I have the honour to remark that the sugar works traffic, estimated at Rs. 15,000, is said to be "guaranteed."

In your Traffic Manager's letter, which formed an enclosure to your letter, No. 8314/414, dated 29th April 1895, it is stated that the application for the branch line emanated from the Directors of the Commercial Bank on behalf of the Arcot Sugar Works. But it is nowhere stated that either of these bodies had agreed to guarantee any particular sum.

Further, statement A which accompanied your 8314/414 puts the sugar traffic to be expected at Rs. 9,509 instead of Rs. 15,000 as stated in your letter under reply. I shall be glad if you will give me full information as to the nature and amount of the guarantee above-mentioned and of its legal value, if any.

I may add that a letter has been received from the Government of India approving generally of the cheaper scheme for the branch. I now await your reply to this present letter as well as to my No. 54/O., dated the 10th June 1897.

From the Acting Agent and Manager, Madras Railway, to the Consulting Engineer for Railways, dated Madras, 1st July 1897, No. 8314/615.

Adverting to your letter, No. 54/O., dated 10th June 1897, I have the honour to return the tracings of the Arcot-Ranipet extension, the plan of the Arcot Junction station having been revised in accordance with your request.

2. In re-submitting these plans the Acting Chief Engineer writes as follows:—

"With regard to these alterations I may say that the small temple shown on the plan is still used for the purposes of worship and it is very improbable that its demolition would be sanctioned. By slightly reducing the width of the island platform at the east end, the temple can be avoided, and this arrangement has been adopted in the revised plan submitted.

"The Acting Traffic Manager has agreed to the removal of the cross-over road included in the original plan to connect the main line and branch at the west end of the station, although he considers it possible that this connection may ultimately be found necessary to facilitate interchange of traffic.

"On reference to the plan it will be seen that, if the west cross-over were retained on arrival of a branch train, the engine could run ahead with the goods wagons and back them down the main line to a storage siding at the west end of the station, pick up its return load and back over the west cross-over direct on to the passenger vehicles at the branch platform, whilst in the absence of the western connection a long shunt has to be effected to get the return load of goods wagons round the passenger carriages.

"With regard to the engine shed, the Locomotive Superintendent stated that it was not necessary but I have now, as requested by the Consulting Engineer, provided for an engine shed with ash-pit and water column.

"The shed would be of the same type as that at Bowringpet, but with brick in lieu of zinc walls to reduce cost. It would accommodate two tank engines, it being proposed to use this class of engine for working the branch.

"With regard to the question of cost, the total estimate may remain unaltered, the savings on account of earthwork and bridges at the east end of the station practically covering the entire cost of the engine shed as follows:—

	Rs.
Savings—	
Earthwork	2,644
Bridges	4,980
Total	7,624
Additions—	
Extending 12-feet bridge	1,799
Two 18-inch pipe drains	278
Engine shed, 70 feet in length, with ash-pit	5,395
Water column and piping	422
Total	7,894
Deduct Savings	7,624
Difference	270 "

3. I would suggest that the name Arcot Junction be retained until such time as the branch is extended to Arcot town.

4. I shall feel much obliged by your informing me if the plans now meet with your approval and, if so, I request that the sanction of the project by Government may be communicated to me at an early date.

From the Acting Agent and Manager, Madras Railway, to the Officiating Consulting Engineer for Railways, dated Madras, 2nd July 1897, No. 8314/621.

In reply to your letter, No. 80/O., dated 30th ultimo, I have the honour to inform you that since my letter, No. 8314/414, dated 29th April 1895, was written Mr. G. Thorburn, Agent, the Arcot Sugar Works and Distilleries, wrote on the 23rd November 1896 to the Company's Acting Chief Engineer with reference to the probable receipts of the branch line as follows:—

"I know my principals are willing to guarantee your Company a traffic of Rs. 15,000 (fifteen thousand rupees) per annum for a siding on to the main line, bringing it any way you please."

ORDER—No. 466 R., dated 15th July 1897.

(Ordered that the report, plans, sections and estimate of the Arcot-Ranipet branch of the Madras Railway be forwarded to the Government of India with the following letter.

[Here enter No. 467 R., dated 15th July 1897].

(True Extract.)

(Signed) F. J. E. SPRING,
Offg. Joint Secy. to Govt.,
Railway Branch.

To the Agent and Manager, Madras Railway.
" Examiner, Guaranteed Railway Accounts.
" Revenue Department.

Expd. W. D'Moers.

RAILWAY.

Government {1897} of Madras. PUBLIC WORKS.

Recd.

Enclosures

Regd.

1897.

Spare copies

Letter, No. 467 R., 15th July 1897.

JULY.

Arcot-Ranipet Branch

Forwarding, with remarks, the plans, estimates and copies of report on the proposed — of the Madras Railway; recommending the project for the favourable consideration of the Government of India; and trusting that sanction may be received in time to permit of the construction of the branch in the ensuing cold season.

PUBLIC WORKS DEPARTMENT.

Railway.

LETTER—from

F. J. E. SPRING, Esq., C.I.E.,

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

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,

*PUBLIC WORKS DEPARTMENT,
Simla.*

SIR,

With reference to Government of India letters, No. 982 R.C., dated 11th June 1897, and No. 855 R.C., dated 22nd May 1897, I am directed to forward, in the usual project form, plans and estimates and copies of report on the proposed Arcot-Kanipet Branch of the Madras Railway.

2. As already intimated in my letter, No. 338 R., of 12th May 1897, the Board of Directors, Madras Railway, have sanctioned an estimate (a copy of which accompanied that letter), amounting to Rs. 2,50,000.

3. The estimate now submitted amounts to Rs. 2,58,065: the formal sanction of the Board to the increased amount will be applied for.

4. Owing to certain alterations at the junction station, suggested by the Consulting Engineer, Madras, and which have been carried out in the plans now submitted, and to the omission of provision for an engine-shed, water column and piping, additions to the estimate, amounting to Rs. 7,894, are required; the Chief Engineer, however, reports that these will be practically covered by savings on account of earth-work and bridging effected by the alterations at the junction station mentioned above. The difference being Rs. 270 only the estimates may therefore be accepted as now submitted.

5. As regards the traffic that may be expected, an explanation of the figures contained in the Chief Engineer's report, No. C/514 (which formed an accompaniment to my letter quoted above), was called for in your letter, No. 855 R.C., and in your subsequent letter, No. 982 R.C., it was requested that the statistics submitted should be trustworthy and supported by the Government of Madras.

6. The explanation required is furnished in statement A submitted by the Traffic Manager through the Agent and Manager.

It will be seen from the details of this statement that the 3rd-class passenger fare is 2 pies per mile, and the goods rate 10 pies per ton mile, instead of 1½ pies and 12 pies, respectively, as assumed in your letter, No. 855 R.C.

7. A further statement B is attached based on actual figures for the year ending 31st December 1896 which works out to nearly the same figure as statement A.

8. It will be noticed that both statements contain the item "goods traffic for sugar works guaranteed" (Rs. 15,000). The Agent and Manager reports that the Agent, Arcot Sugar Works (Mr. Thorburn), wrote on the 23rd November 1896 to the Acting Chief Engineer as follows:—

"I know my principals are willing to guarantee your Company a traffic of Rs. 15,000 per annum for a siding on to the main line, bringing it any way you please."

Although this assurance cannot be accepted as legally binding the Sugar Works Company, it is considered to be good evidence that traffic to that amount may reasonably be expected.

9. As regards the question raised in paragraph 3 of your letter, No. 855 R.C., the Agent and Manager reports that on the Palghat and Coimbatore branches, which are under much the same conditions as that under consideration, it is not found that any considerable number of passengers walk to the junction.

10. It is not unreasonable to anticipate that any small deficit on this account will be covered by the increased passenger traffic which the construction of the branch may be expected to create.

11. On the whole this Government considers that the prospects of traffic as set forth in statements A and B are likely to be realized, while, even if it should turn out that half of the passengers walked from the junction, and that the sugar traffic was found to be worth only half the sum anticipated, the line would still earn upwards of 4½ per cent. on the estimated capital of Rs. 2,58,000.

12. The project is therefore recommended for the favourable consideration of the Government of India. His Excellency the Governor in Council trusts that sanction to the project may be received in time to permit of the construction of the branch in the ensuing cold season.

I have the honour to be,

Sir,

Your most obedient servant,

(Signed) F. J. E. SPRING,
Offg. Joint Secy. to Govt.,
Railway Branch.

OOTACAMUND,
15th July 1897.

1-2-3-4-5-6-7-8-9-10-11 and 12 and
also state number of the train

RAILWAY.

Government (1897) of Madras.
PUBLIC WORKS.

Recd.

Regd.

} 1897.

Enclosures

Spare copies

G.O., No. 466 R., 15th July 1897.

JULY.

Arcot-Ranipettai Branch

Ordered that the report, plans and estimate of the — of the Madras Railway be
forwarded to the Government of India with a letter.

No. 466 R., 15TH JULY 1897.

Print letter from the Collector and District
Magistrate North Arcot to the Secretary to
the Commissioners of Land Revenue, Madras,
No. 10 of 17th April 1895.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following papers:—

Petition from the Residents and Merchants of Wallajapet, Ráripéttai and Arcot, to
the Chief Secretary to Government, Fort St. George, dated Ráripéttai,
16th April 1895.

We have the honour to bring to your notice the great disadvantage which we,
the residents and merchants of Wallajapet, Ráripéttai and Arcot, are put to by the
Madras Railway running at a distance of from 6 to 8 miles from our towns. In the
survey of the railway more regard was paid to political or other considerations than
to commercial requirements, and, in avoiding large towns such as ours by the distances
above mentioned, much traffic, which now goes by carts, would have been carried
over the Madras Railway system.

Of the large traffic between Wallajapet, Ráripéttai, Arcot and Vellore scarcely any
goes by rail. This is but one of the many instances which might be quoted in proof
of the faulty alignment of the line from a commercial standpoint. To send goods by
rail several transshipments from cart to train and train to cart are necessary, thus
causing damage to goods which is now avoided by employing country carts, and which
we would readily abandon in still greater measure, at less cost to ourselves, and to
the benefit of the Madras Railway Company's revenue, if our towns were connected
with the main line.

Feeder lines have, we believe, been a success everywhere, and in asking you to
construct one from Arcot station to Arcot town through Wallajapet and Ráripéttai we
are confident it will not prove an exception. In addition to the traffic we estimate
(vide list attached) the line would tap the large sugar and grain growing districts of
Timery and Arnee and divert to the Madras Railway that traffic from Wallajapet which
now finds an outlet at Kalambar on the South Indian Railway.

A new industry in the shape of a sugar factory is being started at Ráripéttai
which of itself will bring a traffic of over 100 tons per day.
In conclusion we would invite your attention to the census returns which show
that in the last decade the population of Arcot and Wallajapet taluks has increased by
close upon 70,000. The population of the towns in the immediate vicinity of the
branch line asked for is 40,154. A large passenger traffic may therefore be calculated
upon. We beg you will give our petition your early and careful attention.

ENCLOSURES.

Estimate of Traffic referred to

Inwards—	Tons per annum.
Dry hides and skins	1,200
Tanning bark	1,800
Chillies	600
Salt	7,000
Piece-goods and sundries	7,000
Sugar works	28,700

Submitted to Govt
Endorsement by No. 1692 of 27 April 1897
Transferred to the Public Works Department, Madras.

No. 466 R., 15TH JULY 1897.

Estimate of Traffic referred to—cont.

Outwards—	Tons per annum.
Ground-nuts	7,000
Grain	7,500
Oil cake	2,000
Oils, tanned hides, &c.	10,000
Sugar works	13,400
Total	86,200

Railway maunds 2,327,400.

From the Agent and Manager, Madras Railway Company, to the Secretary, Madras Railway
Company, London, dated Madras, 18th April 1895, No. 2192.

7 I forward herewith for the information of the Board copy of a numerous signed peti-
tion addressed to the Madras Government,
praying for the construction of a branch line
from Arcot station to Arcot town through
Walajapet and Ráripéttai. I also enclose copy
of a letter from the Chief Engineer submitting a plan and estimate of the proposed line, as well
as copy of a communication from the Traffic Manager furnishing notes and figures on the traffic
prospects. The line should not in my opinion be extended across the river at first or until the
trade between Arcot station, Walajapet and Ráripéttai has been tested.

8. It is probable that the Government may address us shortly on the subject of the petition.
The branch line in my opinion would be a valuable feeder to the South-West main line.

From the Consulting Engineer for Railways, to the Agent and Manager, Madras
Railway, dated Madras, 24th April 1895, No. 1365.

With reference to paragraph 7 of your letter, No. 2192, dated 18th April 1895,
to your Board, I have the honour to request that I may be furnished with information
on the subject.

From the Agent and Manager, Madras Railway, to the Consulting Engineer for
Railways, Madras, dated 20th April 1895, No. 8314/414.

Referring to your letter, No. 1365, dated the 24th instant, I have the honour to
inform you that a copy of the petition addressed to the Madras Government praying
for the construction of a branch line from Arcot station to Arcot town was furnished
to me and transmitted to the Board by the last mail, no copy having been retained in
this office. I enclose copies of the letters from the Traffic Manager and the Chief
Engineer dealing, respectively, with the traffic prospects and cost of construction of
the proposed line.

ENCLOSURES.

From the Traffic Manager, to the Agent and Manager, Rárapuram, dated Madras, 26th
February 1895, C. No. 1261 A. and M./23809.

[Your No. 8314/1594, dated 20th February 1895.]

On the 26th January I visited Arcot town, passing through Wallajapet and Ráripéttai in
connection with the application for a branch line to the Ráripéttai Sugar Factory, but I was unable
to send you a copy of my notes on the proposed branch until I had obtained certain maintenance
figures from the Chief Engineer. I now have the pleasure to forward a copy of my notes and
three statements A, B and C of the approximate financial results from such a branch. If we
take Nellikuppam as an example the line should have brilliant prospects.

Notes on an application for a branch line from Arcot station to Rānipéttaī.

The application for this branch line emanates from the Directors of the Commercial Bank, I understand, on account of the Arcot sugar works. The Arcot sugar works and distillery are being financed by the Commercial Bank and managed by Mr. Thorburn; and as approximately two-thirds at least of the goods traffic which may be expected to be carried over such a branch (if constructed) would be on behalf of these works, the extent of their traffic will decide whether such a project would give a satisfactory return on the necessary outlay. I passed through Wallajapet, Ránipéttai and Arcot on the 21st instant, but did not traverse the length of the proposed route as this can only be done on horse back or on foot, and I had not then the time to spare for commenting upon the proposed alignment, the chief object of my journey being the sugar factory at Ránipéttai.

2. At these works I was shown the foundations which were designed to accommodate new machinery designed to deal with the sugar cane crop of the month of September 1897.

2. At these works I was shown the foundations which are already laid for a new building to accommodate new machinery designed to double the output to commence with. This machinery, Mr. Thorburn informed me, has been ordered from England and should be fitted up in the new building and working before the end of 1895. October is named as the date for completion. Six months later according to the Manager the works will be in "full swing."
3. They are designed to turn out at the commencement 20 tons of refined sugar per day.
4. To manufacture 20 tons of refined sugar 46 tons of jaggery are required, and a considerable time, come from Palghat, as large stores of raw material are kept on hand, and stored, so that there need be no interruption of the supply of raw material on which to work.
5. To

3. They are designed to turn out at the commencement 20 tons of refined sugar per day.
4. To manufacture 20 tons of refined sugar 46 tons of jaggery are required and this will, for considerable time, come from Palghat, as large stocks are already being brought up in that district and stored, so that there need be no necessity for the machinery to stand idle for want of material on which to work.
5. To keep the machinery going 50 tons of wood or 25 tons of coal per day will be required.
- At present 3 tons of molasses per day are being forwarded to Salem.
- Also 40,000 gallons of spirit rum, come from the same source.

4. To manufacture 20 tons of refined sugar 46 tons of jaggery are required and this will, for a considerable time, come from Palghat, as large stocks are already being brought up in that district and stored, so that there need be no necessity for the machinery to stand idle for want of raw material on which to work.
5. To keep the machinery going 50 tons of wood.
6. At present 3 tons of molasses.
7. Also 40 tons of fuel.

5. To keep the machinery going 50 tons of wood or 25 tons of coal per day will be required.
6. At present 3 tons of molasses per day are being forwarded to Salem.
7. Also 40,000 gallons of spirit rum, commonly called arrack like the native commodity.
- 7.-A As shown on statement "A" attached the total receipts on this
- 509-2-0 for a period of 12 months.
8. Taking the South-West
- be taken as B

7. Also 40,000 gallons of spirit rum, commonly called arrack like the native commodity.
- 7.-A As shown on statement "A" attached the total receipts on this traffic would be Rs. 9,509-2-0 for a period of 12 months.
8. Taking the South-West line passenger figures as a basis the receipts for passenger traffic might be taken as Rs. 15,396 for the 7 miles and probably Rs. 5,094 as a moderate estimate of the goods traffic over the branch other than that to and from the sugar works giving a total of Rs. 30,000 (*vide* statement B).
9. If the line is made it should undoubtedly run there seemed to be a stream of foot passengers from Wallajapet and Rānipettai.
10. The

8. Taking the South-West line passenger figures as a basis the receipts for passenger traffic might be taken as Rs. 15,396 for the 7 miles and probably Rs. 5,004 as a moderate estimate of the goods traffic over the branch other than that to and from the sugar works giving a total of Rs. 30,000 (*vide* statement B).

9. If the line is made it should undoubtedly run as a feeder line to the main line and there seemed to be a stream of foot passengers from Wallajpet and Rānipettai to Salem.

10. The statement "A" attached the total receipts on this traffic would be for a period of 12 months.

11. commonly called arrack like the native commodity.

9. If the line is made it should undoubtedly run across the river bed into Arcot town, for there seemed to be a stream of foot passengers passing between Rānipéttai and Arcot, also between Wallajapet and Rānipéttai and there should be a good local passenger traffic between those places.
10. These three towns would, in all probability, supply a very much larger area of the surrounding country with grain and other merchandise if a railway passed through them; but, as stated in the traffic canvasser's report of 20th August 1894, there is no particular production at the places themselves as far as weight is concerned.
11. At the last census the populations of the Wallajapet and Rānipéttai

10. These three towns would, in all probability, supply a very much rounded country with grain and other merchandise, also between stated in the traffic canvasser's report as being a good local passenger traffic between those places.

11. A...

11. At the last census the populations of the three towns were in 1821—

Wallajapet	...	...	...
Ranipettai	...	...	...
Arcot	...	...	...

There is a large quantity of refined sugar imported from the Nellikuppam market and there is an excellent market for it.

[illegible]

14. The South Indian receipts at Nellikuppam station have increased to a lakh and a half per annum for jaggery treacle and sugar traffic only.
15. The Directors of the Commercial Bank a large industry at Ránipéttai if rail- turned into a company.
16. Stat

15. The Directors of the Commercial Bank are said to look forward to the establishment of a large industry at Ránipéttai if railway facilities are given and the "works" will probably be turned into a company.

16. Statement "B" attached shows the approximate cost of the proposed line on a capital of 4 lakhs, the estimated receipts at Nellikuppam station have increased to a lakh and a half.

17. Statement "C" shows the estimated receipts at Nellikuppam station have increased to a lakh and a half.

16. Statement "B" attached shows the approximate financial results of 7 miles of our south-west line on a capital of 4 lakhs, the estimated cost of this branch—vide paragraphs 7(a) and 8.

18. There is no reason, as far as I can see, why the Rémipéttai sugar industry should not grow as rapidly as did that of Nellikuppam.

A.

RS. A. P.

Refined sugar 6,000 tons or 163,333 maunds at 10 pies rate for 7 miles.	@ 2.59 pies per maund=2,203 4 8
Jaggery 15,000 tons or 408,333 maunds at Palghat mileage 4.53 for 7 miles	@ 1.18 pies per maund=2,509 8 9
Molasses 1,000 tons or 27,222 maunds at Salem mileage 6.02 for 7 miles.	@ 1 pie per maund = 141 12 6
Wood, fuel, 15,000 tons or 4,08,333 maunds at Ambur mileage 6.80 pies for 7 miles	@ 1.76 pies per maund=3,743 0 10
Spirits, country, 480,000 gallons (10 lb. a gallon) or tons 2,142-17 or 58,333 maunds at 13.61 pies rate for 7 miles	@ 3 pies per maund = 911 7 3
	Total ... 9,509 2 0

B.

RS. RS.

Actual local coaching receipts of 7 miles the south-west line	15,398
Goods traffic at actual rates to and from the Ránipéttai Sugar Works (<i>vide</i> Traffic Manager's notes after visiting Ránipéttai, <i>vide</i> statement A)	9,510
Estimated goods traffic (over the 7 miles) for the public generally	5,094
	14,604
Total	30,000

Cost of working 7 miles is '0024 of the remainder of system. Madras Railway earnings Rs. 1,03,92,255. Expenditure Rs. 53,19,183 Percentage of expenditure on the earnings is Rs. 51·2.

New line earnings Rs. 30,000. Expenditure Rs. 15,360. Percentage of expenditure on the earnings is Rs. 51·2.

Receipts for 7 miles are '0028 of the remainder of system.
Profit per cent. on a capital of 4 lakhs of rupees per annum is Rs. 3-7.

C.

ES

Actual coaching traffic dealt with at Arcot calculated as for 7 miles.	25,747
Actual goods traffic dealt with at Arcot for 7 miles calculated at the average goods rate or 10 pies	9,990
Total	35,737

Cost of working 7 miles is 0037 of the remainder of system. Madras Railway earnings Rs. 1,03,92,255. Expenditure Rs. 53,19,183. Percentage of expenditure on the earnings is Rs. 51·2.

Extract from Agent's letter to Board, Madras Railway, dated 15th April 1897, No. 2304.

16. *Arcot-Ranipettai Branch*.—I beg to forward a report (with plan) from the Acting Chief Engineer on the alignment which has been finally decided as the best for the proposed Arcot-Ranipettai branch, about 4½ miles in length. It will be observed that owing to recent modifications authorised in standard dimensions, the Acting Chief Engineer has been able to reduce the quantity of earth-work and bridging; and by using second-hand rails, the estimated cost per mile is now given as Rs. 56,715; or taking round numbers, it is calculated that the branch, including the short siding into the Distillery and Sugar Works can be constructed and equipped for Rs. 2,50,000, with the prospect of a return of over 7 per cent.

In paragraph 22 of your letter, No. 920, the Board state that they are prepared to construct this branch as part of the Madras Railway system, and propose to provide the necessary capital out of the Company's sterling borrowing powers by the issue of 3 per cent. debentures. Before, however, application can be made to Government to ascertain if the above terms will be accepted, it will be necessary first to obtain the Board's sanction and approval to the proposed outlay of Rs. 2,50,000. This, it is requested, may be communicated to me by telegraph by the words "Arcot construction sanctioned," if approved; or "Arcot not sanctioned," if not approved. This request is made to enable this project to be submitted in a complete form to the Government of India Conference by the 15th May next as prescribed by that Government.

Telegram from the Consulting Engineer for Railways, Madras, to the Agent and Manager, Madras Railway, dated 26th April 1897, No. 5-C.

From the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 27th April 1897, No. 293 R.

With reference to your letter, No. 352-R.C., dated 1st March 1897, and subsequent reminder requesting early submission of the project for the construction of the Arcot-Ranipettai Branch Railway, I am directed to state that the information required will be sent early next month when the Agent and Manager expects to receive his Board's reply on the subject.

From the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 30th April 1897, No. 318 R.

In continuation of my letter, No. 293 R., dated the 27th instant, I am directed to forward a copy of a letter from the Agent and Manager, Madras Railway Company, No. 8314-401, dated the 27th April 1897, with its enclosures.

The enclosures consist of a report, No. 514-C., dated 13th April 1897, by the Company's Officiating Chief Engineer on the proposed short branch line to the Pálár river bank at Ranipettai, just opposite Arcot City, together with a plan and an estimate of its cost.

The Agent still awaits his Board's sanction to the project, and as soon as I learn of their having replied to him I shall wire you the result.

Meanwhile it is thought advisable to send forward the information now available, in the belief that it will probably serve your present purpose, viz., the discussion of the scheme at the coming Conference. Should the proposed branch commend itself to the Board and to the Government of India it shall in due course, when ready, be sent forward in the prescribed project shape.

I am desired to add that, as regards this and all other projects for railway extension in this Presidency, the Government of India are being addressed in a separate letter in which the views of this Government, as to the advisability or otherwise of undertaking each of the projects, shall in due course be communicated.

ENCLOSURES.

From the Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 27th April 1897, No. 8314/401.

With reference to your endorsement, No. 934, dated 11th March 1897, on letter from the Government of India, No. 352 R.C. of the 1st idem, I have the honour to forward herewith 90 copies of the report from the Acting Chief Engineer on the proposed branch line from Arcot to Ranipettai, about 4½ miles in length, together with eight copies of the plan. It will be observed that the estimated cost per mile is now given as Rs. 56,715 or the total cost of the branch is in

round numbers estimated at Rs. 2½ lakhs of rupees, with the prospect of a return of over 7 per cent. I have submitted copies of the report to my Board with the request that their sanction to it may be communicated to me by telegraph.

From the Acting Chief Engineer, to the Acting Agent and Manager, Madras Railway Company, dated Madras, 13th April 1897, No. 514 C.

ENCLOSURES.

Arcot-Ranipettai Surveys.

In accordance with the request contained in your No. 8314 of 10th current, I beg to submit the following report on the Arcot-Ranipettai Surveys.

2. During the past two years several projects for the extension of the Madras Railway to Ranipettai on the north bank of the Pálár river have been investigated but, owing to the large outlay which their construction would involve, only three of the several schemes—distinguished in this report as Branch A, Branch B and Branch C—are practicable.

3. Branch A is a proposal for a line leaving Arcot station at the east end proceeding south to Walajanagar and then running west to a terminus at Ranipettai, the total length of the line being 6.02 miles and the estimated cost, including a provision of Rs. 88,000 for rolling stock, Rs. 6,83,559 or Rs. 1,13,544 per mile.

4. Branch B is a scheme for a direct line from Arcot station to Ranipettai as suggested by Mr. Hodson, when Consulting Engineer for Railways to the Government of Madras. The length of this branch would be only 4.17 miles, but the earthwork would be heavy and the cost of bridging considerable. Comparative estimates for this route are shown in the statement attached, the 1st includes rolling stock and new rails and amounts to Rs. 4,60,693 or Rupees 1,10,478 per mile; the 2nd omits rolling stock, and certain portions of the station machinery stated by the Locomotive Superintendent and Acting Traffic Manager to be unnecessary and allows for the road being laid with second-hand rails. The latter estimate is thereby reduced to Rs. 3,43,137 or Rs. 82,287 per mile.

5. Branch C is a route, proposed by Mr. E. W. Stoney when Acting Chief Engineer, possessing material advantages over each of the projects referred to above. The line runs along the watershed following closely the existing public road from Arcot station to Ranipettai and, owing to this very favourable alignment, the earthwork is exceedingly light and the bridging, with the exception of 1—20 feet and 1—30 feet opening, is confined to small culverts and pipe drains.

The length of this line is 4.35 miles, the ruling gradient being 1 in 100 and the sharpest curve 1,200 feet radius.

The banks will be constructed to a top width of 16'-6", the Government of India having recently issued revised standard dimensions which permit of banks being reduced from 20 feet to this width at formation level.

The gauge of the line will be 5'-6" and the permanent-way will consist of 20 feet iron double-headed rails (second hand) weighing 84 lb. per lineal yard with new pot sleepers, tie bars, cotters and gibs. An ample supply of sand ballast is available at the Poiney river at 7¼ miles on the Madras Railway, moorum gravel also being procurable in the vicinity of the proposed line.

6. There will be two stations only—the Junction at Arcot and the new station at Ranipettai. At the former only such additions and alterations will be made to the existing Madras Railway station as will enable it to be used for the two lines and will be required for the proper interchange of traffic. On the opening of the proposed branch most of the passenger and goods traffic now received at Arcot station will be transferred to Ranipettai and it will therefore be possible to remove some of the sidings and dismantle a portion of the buildings at the former station and utilize the materials for the new works.

At Ranipettai it is intended to construct a permanent station house, platform 600 feet in length, goods godown and loading platform, quarters for the station staff and the siding accommodation necessary to deal with the whole of the traffic anticipated. If approved, the proprietors of the Arcot Sugar Works also desire to construct at their own cost the siding into their works shown on the plan accompanying this report.

7. The total estimate for this branch is Rs. 2,46,712 or Rs. 56,715 per mile and assuming that the following figures, given by the Acting Traffic Manager in his letter, No. C/1261 A. and M. of 15th March 1897, of probable traffic returns are correct:—

- (1) Actual coaching traffic dealt with at Arcot calculated as for 5 miles—¾ of Rs. 25,747 = Rs. 18,391
- (2) Actual goods traffic exclusive of that appertaining to the Sugar Works—¾ of Rs. 8,618 = Rs. 6,156

- | | | | | | | |
|----------------------------------|-----|-----|-----|-----|----------------------------|------------|
| 23rd November 1896) | ... | ... | ... | ... | ... | Rs. 15,000 |
| | | | | | Total Gross Earnings | Rs. 39,547 |
| Less—Working expenses at 51·2 of | | | | | earnings, as on the Madras | |
| Railway | ... | ... | ... | ... | | Rs. 20,248 |
| | | | | | Net Receipts | Rs. 19,299 |

(Signed) H. J. THOMPSON, M.I.C.E.,
Acting Chief Engineer.

Arcot-Ramipettai Extension 5' 6" Gauge.
Comparative Statement showing Abstracts of Estimates
Alternative Routes.

Head of Accounts.	Branch A. 6.02 miles.	Branch B (Proposed by Mr. Hodaon).		Branch C (Proposed by Mr. Stoney).
		Original estimate 4.17 miles.	Revised estimate omitting rolling- stock, &c., 4.17 miles.	Estimate. 4.34 miles.
Preliminary expenses. ..	1,678	1,164	1,164	1,214
Land	40,787	20,502	20,502	4,284
Formation	1,20,203	95,094	92,341	30,022
Bridge work	1,04,055	34,652	34,652	13,957
Fencing	37,255	1,491	1,491	1,491
Road crossing	37,255	7,809	7,809	3,408
Mile and Gradient Posts ..	5,217	160	160	207
Electric Telegraph	51,574	3,250	3,250	2,994
Ballast	1,65,697	20,423	17,463	17,598
Permanent-way	18,810	1,40,227	1,24,428	1,36,271
Stations and offices	814	10,390	10,390	10,390
Workshop and Store buildings.	8,392	404	404	404
Staff Quarters	20,649	5,063	2,071	2,071
Station Machinery	2,142	13,956	8,904	8,904
Plant, Engineering	3,895	2,142	2,142	2,142
Station and office furniture ..	88,000	1,575	1,575	1,575
Rolling-stock	14,401	14,401	14,401	..
General charges	3,83,559	4,60,693	3,43,137	10,800
Total	1,13,544	1,10,478	82,287	2,46,712
Rate per mile	..	..	..	..

Minimum dimensions are in accordance with Public Works Department Circular No. 5, Railway of 1892. All the Permanent-way materials are taken as new.

Minimum dimensions are in accordance with Public Works Department Circular No. 5, Railway of 1892. All the Permanent-way materials are taken as new.

Minimum dimensions are in accordance with Public Works Department Circular No. 8, Railway of 1896. Received in this office on the 7th January 1897. Permanent-way consists of 2nd hand rails and new posts, &c. staff quarters reduced. Rolling-stock omitted. Locomotive station machinery omitted in accordance with suggestions contained in Traffic Manager's No. C. 107, A and M. of 2nd February 1897 and Locomotive Superintendent's No. B. 112 of 23rd January 1897.

Dimensions are in accordance with Public Works Department Circular No. 8, Railway of 1896. Received in this office on the 7th January 1897. Permanent-way consists of 2nd hand rails and new posts, &c. staff quarters reduced. Rolling-stock omitted. Locomotive station machinery omitted in accordance with suggestions contained in Traffic Manager's No. C. 107, A and M. of 2nd February 1897 and Locomotive Superintendent's No. B. 112 of 23rd January 1897.

(Signed) H. J. THOMPSON, M.A.C.E.,
Acting Chief Engineer.

I have the honour to acknowledge the receipt of your letter No. 8314/401, dated the 27th April 1897, and to inform you that a copy of your letter and of its enclosures has gone forward to the Government of India so that it may be considered at the coming Conference. I shall be glad to be informed by wire of your Board's views as soon as you receive them.

Meanwhile will you be good enough to put Mr. Stoney's 2½ lakhs project into the regular project form furnished by the Government of India, with such modifications of his figures as are necessitated by your entering the Arcot station, as indicated in the latest map and as agreed to at our verbal discussion on the subject.

From the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 12th May 1897, No. 338 R.

In continuation of my letter No. 318 R., dated the 30th April 1897, on the subject of the Arcot Branch, Madras Railway, I am desired to forward, for the information of the Government of India, a copy of a telegram, dated 10th May, from the Agent, Madras Railway Company, intimating that the Board have sanctioned the branch.

2. The opinion of this Government in regard to the proposed scheme has been communicated to you in paragraph 5 of my letter No. 332 R., dated the 10th January 1901.

3. This Government will be glad to learn of the Government of India's general approval of the adoption of the cheapest scheme, viz., that proposed in the last column of page 5 of the enclosure to the Madras Railway Company's Agent's No. 8314/401 of April 27th, which reached you under cover of my letter above referred to.

4. The Agent has been requested to put this last scheme into regular operation, and to submit his proposals for entering Arcot station.

4. Meanwhile the Agent has been requested to put this last scheme into regular project shape with full details showing his proposals for entering Arcot station.

5. As regards the provision of funds for this short branch, I am to say that it seems scarcely worth while to incur the trouble and expense involved in the levying of the Separate Revenue accounts which will be necessary if it be decided that it must come under the new, or what may be called the Calicut-Cannanore term.

ENCLOSURE

ENCLOSURE

must come under the

ENCLOSURE

Telegram from the Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Rayapuram, 10th May 1897.

Telegram sanctioning construction of Arcot-Ranipettai branch.

Telegram from the Acting Agent and Manager, Madras Railway, dated Rayapuram, 10th May 1897.
 Engineer for Railways, dated 10th May 1897.
 Have received Board's telegram sanctioning construction of Arcot-Ranipettai branch.
 Letter follows.

Government of India, Public Works Department

From the Under Secretary to the Government of India, Public Works Department (Railway Construction), to the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, the 22nd May 1897, No. 855 R.C.

With reference to your letter No. 318 R., dated 30th April 1897, forwarding an approximate estimate for the Arcot-Ranipettai branch, I am to point out that if the length of the line be taken as 5 miles for charge and the passenger fares $1\frac{1}{2}$ pies per mile and the goods rates 12 pies per ton, 470,809 passengers and 67,699 tons of goods would have to be carried to work up to the estimated earnings of Rs. 18,391 and Rs. 21,156, respectively.

2. As the outwards and inwards traffic at Arcot in 1896 (from the Madras Railway revenue statistics) amounted to 318,498 passengers and 925,300 maunds (34,270 tons) of goods, I am to ask that the traffic estimate may be reconsidered and this large increase justified, the method of calculation being also explained.

3. It would *prima facie* appear more probable that a portion at least of the passengers would continue to walk to the junction.

No. 46/O., 4th June 1897.

Copy forwarded to Agent and Manager, Madras Railway, for favour of remarks with reference to his letter, No. 8314/401, dated 27th April 1897.

From the Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 1st June 1897, No. 8314/523.

With reference to paragraph 2 of your letter No. 7/O., dated 30th April 1897, I have the honour to submit the plan and estimate of the Arcot-Ránipéttaí branch in the regular form prescribed by the Government of India.

Bound up
in one book.

ENCLOSURE.

(Signed) H. C. WEST,
Acting Agent and Manager.

5. It seems to me that hereafter the branch terminus must be called Arcot, and that the junction, a place in the future of very minor importance might be called Ammur junction.

3. The passenger fare taken has been 2 pies per mile that being the present third-class fare. Our experience of Coimbatore and Palghat, which are branches under much the same conditions, does not show that any considerable proportion of the passengers walk from the junction. I think the figures of Rs. 15,000 for the sugar factory traffic is well within the mark and when railway communication to their door is provided, it will probably be largely increased.

ENCLOSURES.

STATEMENT A.

Revised Figures.

Total ... 35,737

1. Actual coaching traffic dealt with at Arcot calculated as for 5 miles $\frac{1}{2}$ of ...	RS. 25,747	RS. 18,391
2. Actual goods traffic dealt with at Arcot as per statement in other column ...	9,990	
Less actual sugar works traffic 3,762 tons at 10 pies per ton per mile for 7 miles ...	1,372	

Details.

1. First-class passengers 141 at 12	
pies per mile for 7 miles	62
Second-class passengers 494 at 6	
pies per mile for 7 miles	108
Third-class passengers 350,774 at 2	
pies per mile for 7 miles	25,577

Total ... No. 351,409 25,747

2. Total weight of goods traffic in and out of Arcot station, 27,400 tons at 10 pies per ton per mile for 7 miles	...	...	...	...	9,990
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STATEMENT B.

(Period 1st January 1896 to 31st December 1896.)

Total number of passengers to and from Arcot station.		RS.	RS.
First-class number	621 at 12 pies per mile	...	194
Second-class number	1,082 at 6 pies per mile	...	169
Third " "	3,16,795 at 2 pies per mile	...	16,500
Total No.	...	318,498	16,863

Weight of goods traffic in and out dealt with at Arcot.		RS.
Total tonnage of goods	...	34,270
Less sugar works traffic	...	6,757
Actual goods traffic exclusive of that belonging to the sugar works	...	7,165
27,513 tons at 10 pies per mile for 5 miles	...	15,000
Goods traffic for the sugar works guaranteed	...	15,000
Total	...	39,028

From the Under Secretary to the Government of India, Public Works Department (Railway Construction), to the Officiating Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, the 11th June 1897, No. 982 R.C.

With reference to your letter No. 338 R., dated 12th May 1897, I am directed to convey the general approval of the Government of India to the adoption of the cheaper scheme proposed for the construction of the Arcot-Ranipet branch of the Madras Railway, viz., for the line 4.35 miles long at a cost of Rs. 2,46,712 being at the rate of Rs. 56,715 per mile.

2. I am to request that, in submitting this scheme for a cheap line in regular project shape, care may be taken that the traffic statistics asked for in Government of India letter, No. 855 R.C., dated 22nd May 1897, may be accurate and reliable and accepted by the Government of Madras before being furnished to the Government of India.

3. The question asked in paragraph 5 of your letter will be considered on receipt of the views of the Board of Directors on the subject.

From the Consulting Engineer for Railways, to the Agent and Manager, Madras Railway, dated Ootacamund, 30th June 1897, No. 80/O.

With reference to your letter, No. 584, dated 18th June 1897, and enclosures, I have the honour to remark that the sugar works traffic, estimated at Rs. 15,000, is said to be "guaranteed."

In your Traffic Manager's letter, which formed an enclosure to your letter, No. 8314/414, dated 29th April 1895, it is stated that the application for the branch line emanated from the Directors of the Commercial Bank on behalf of the Arcot Sugar Works. But it is nowhere stated that either of these bodies had agreed to guarantee any particular sum.

Further, statement A which accompanied your 8314/414 puts the sugar traffic to be expected at Rs. 9,509 instead of Rs. 15,000 as stated in your letter under reply. I shall be glad if you will give me full information as to the nature and amount of the guarantee above-mentioned and of its legal value, if any.

I may add that a letter has been received from the Government of India approving generally of the cheaper scheme for the branch. I now await your reply to this present letter as well as to my No. 54/O., dated the 10th June 1897.

From the Acting Agent and Manager, Madras Railway, to the Consulting Engineer for Railways, dated Madras, 1st July 1897, No. 8314/615.

Adverting to your letter, No. 54/O., dated 10th June 1897, I have the honour to return the tracings of the Arcot-Ranipet extension, the plan of the Arcot Junction station having been revised in accordance with your request.

2. In re-submitting these plans the Acting Chief Engineer writes as follows:—
"With regard to these alterations I may say that the small temple shown on the plan is still used for the purposes of worship and it is very improbable that its demolition would be sanctioned. By slightly reducing the width of the island platform at the east end, the temple can be avoided, and this arrangement has been adopted in the revised plan submitted.

"The Acting Traffic Manager has agreed to the removal of the cross-over road included in the original plan to connect the main line and branch at the west end of the station, although he considers it possible that this connection may ultimately be found necessary to facilitate interchange of traffic.

"On reference to the plan it will be seen that, if the west cross-over were retained on arrival of a branch train, the engine could run ahead with the goods wagons and back them down the main line to a storage siding at the west end of the station, pick up its return load and back over the west cross-over direct on to the passenger vehicles at the branch platform, whilst in the absence of the western connection a long shunt has to be effected to get the return load of goods wagons round the engine shed, the Locomotive Superintendent stated that it was not necessary but I have now, as requested by the Consulting Engineer, provided for an engine shed with ash-pit and water column.

"The shed would be of the same type as that at Bowringpet, but with brick in lieu of zinc walls to reduce cost. It would accommodate two tank engines, it being proposed to use this class of engine for working the branch.

"With regard to the question of cost, the total estimate may remain unaltered, the savings on account of earthwork and bridges at the east end of the station practically covering the entire cost of the engine shed as follows:—

Savings—		RS.
Earthwork	...	2,644
Bridges	...	4,980
Total	...	7,624
Additions—		1,799
Extending 12-feet bridge	...	278
Two 18-inch pipe drains	...	5,395
Engine shed, 70 feet in length, with ash-pit	...	422
Water column and piping	...	7,894
Total	...	7,624
Deduct Savings	...	270
Difference	...	270

3. I would suggest that the name Arcot Junction be retained until such time as the branch is extended to Arcot town.

4. I shall feel much obliged by your informing me if the plans now meet with your approval and, if so, I request that the sanction of the project by Government may be communicated to me at an early date.

From the Acting Agent and Manager, Madras Railway, to the Officiating Consulting Engineer for Railways, dated Madras, 2nd July 1897, No. 8314/621.

In reply to your letter, No. 80/O., dated 30th ultimo, I have the honour to inform you that since my letter, No. 8314/414, dated 29th April 1895, was written Mr. G. Thorburn, Agent, the Arcot Sugar Works and Distilleries, wrote on the 23rd November 1896 to the Company's Acting Chief Engineer with reference to the probable receipts of the branch line as follows:—

"I know my principals are willing to guarantee your Company a traffic of Rs. 15,000 (fifteen thousand rupees) per annum for a siding on to the main line, bringing it any way you please."

ORDER—No. 466 R., dated 15th July 1897.

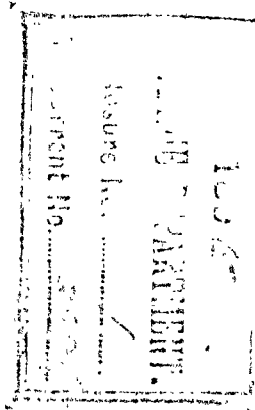
Ordered that the report, plans, sections and estimate of the Arcot-Ranipettai branch of the Madras Railway be forwarded to the Government of India with the following letter.

[Here enter No. 467 R., dated 15th July 1897].

(True Extract.)

Under Secretary to Government,
Railway Branch.

To the Agent and Manager, Madras Railway:
" Examiner, Guaranteed Railway Accounts.
" Revenue Department.



Pariphet 16th April 1895.

The Chief Secretary
To Government
Fort St. George

Sir,

We have the honor to bring to your notice the great disadvantage which we, the Residents and Merchants of Wallajah Pariphet and Arcot, are put to by the Madras Railway running at a distance of from 6 to 5 miles from our towns. In the survey of the Railway more regard was paid to political or other considerations than to Commercial requirements, and, in avoiding large towns such as ours by the distances above mentioned, much traffic, which now goes by carts, would have been carried over the Madras Railway System.

Of the large traffic between Wallajah Pariphet Arcot and Vellore, scarcely any goes by Rail. This is but one of the many instances which might be quoted in proof of the faulty alignment of the line from a Commercial standpoint. To send goods by rail, several transshipments from cart to train and train to cart are necessary, thus causing damage to goods which is now avoided by employing country carts, and which we would readily abandon in still greater measure, at less cost to ourselves and to the benefit of the Madras Railway Company's revenue, if our towns were connected with the main line.

Gooder Lines have, we believe, been a success everywhere, and in asking you to construct one from Arcot Station to Arcot Town through Wallajah and Pariphet we are confident it will not prove an exception. In addition to the traffic we estimate (vide list attached) the line would tap the large Sugar and Grain growing districts of Tinney and Arcot and, direct to the Madras Railway that traffic from Wallajah which now finds an outlet at Palambur on the South Indian Railway.

A new industry in the shape of a Sugar Factory is being started at Pariphet which of itself will bring a traffic of over 100 tons per day.

Yr

10/11/10

Estimate of Traffic re

Inwards	ed to	Tons. per annum
Dry Hides and Skins		1200
Tanning bark		1500
Chillies		600
Salt		7000
Picegoods and Sundries		7000
Sugar Works		28.700
<u>Outwards</u>		
Ground nuts		7000
Grain		7500
Oil cake		2000
Pils Tanned Hides re.		10000
Sugar Works		13.400
		<u>56200</u>

Shipping Manned 23.27.400

Dis No. 10 of 1895.
Camp.

North Arcot COLLECTOR'S OFFICE,
Palmaneri. 17 April 1895.

FROM

S. H. Wynne, Esquire
COLLECTOR AND DISTRICT MAGISTRATE,

North Arcot

TO

THE

Secretary to the Commissioners of
Land Revenue

Madras

SIR,

I have the honor to forward for transmission to Government a petition received from the inhabitants of Arcot and the neighbourhood requesting a branch or feeder line from the Arcot Railway station. The evils of the unfortunate alignments of the Madras Railway can only be cured by the construction of branches and the neighbourhood to be served by the proposed line is of importance commercially, especially as the existing distillery at Ranipet is to have as an adjunct a sugar factory which is now under construction. At present, no one thinks of using the Railway as a means of Communication between Arcot and Ranipet and no goods are

very few passengers are carried by it between
Vellore and Ranipet or Wallajah. That a
branch line would be a immense conve-
nience is indubitable but as to its
financial effect, I have not sufficient
means of judging.

2. I understand that the petitioners
particularly desire that the petition
should reach Government on the
earliest possible day.

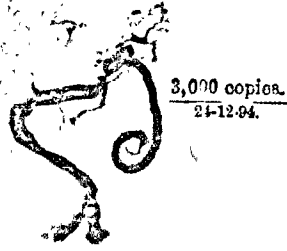
I have the honor to be
Sir,
your most obedient servant

J. H. Jones.

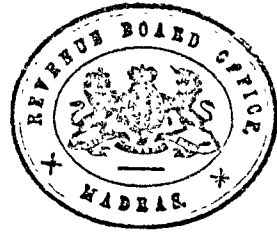
Col. Collector

Dec 1
1895/1896

1005
REVENUE DEPARTMENT.
Serial No.



3,000 copies
24-12-94.



Proceedings of the Board of Revenue

(Land Revenue),

Dated 22nd April

1895.

No. 2008

Mis.

Routine.

READ Letter from S. H. Forjane Esquire, Collector
and District Magistrate of North Arcot
to the Secretary to the Commissioners
of Land Revenue, Madras, dated
17th April 1895 Div No. ¹⁰/₁₀ of 1895

Resolution

Submitted to Government.

(See Extract)

Recd
By Secretary.

To

The Secretary to Govt.
Revenue Dept.
with letter & petition.

very few passengers

P. W. CURRENT 1810

Urgent

Revenue 1895. Dept

Board of Revenue

(Land Revenue),

MADRAS.

Recd

Recd: 6.9.95

Endorsement No 1692

Transferred to the Public
Works department (Rail

To

The Secretary to Govt
Revenue Department

[Signature]
Ag: Secretary to Govt

Optacanned
29 April 1895

Recd 26 April

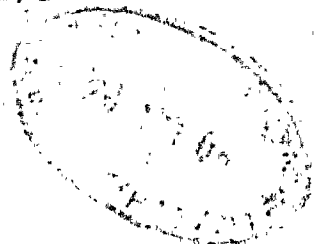
Proceedings, dated
No. 2005

22 April 1895,
Mis.
Routine.

28
1894

Subject.

Submitting to Government
Memorial from the inha-
-bitants of Arcot &c
praying for the construction
of a feeder line of Railway
from the Arcot Station.



Q 112, 084, 01010887

Q 87- 085, 01010887
Kadon Katakam Salik

Q 87- 085, 01010887

Q 87- 085, 01010887

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[illegible]

Wm
of 207 to
Street, Merchant
Quarry to
West.

Good
Glenwood
Glenwood
Glenwood

7th instant, soliciting an early reply. In para. 7 of my letter No. 2076, a request was made on his behalf that he might be permitted to remit the equivalent of Rs. 300 at the contract rate, and with my letter No. 2149 I forwarded copy of a letter from the Locomotive Superintendent, dated the 7th March 1894, in which permission was asked for a remittance of £16 only, the amount being equal to half of Mr. Barefoot's salary. I beg to request that the Board will kindly communicate to me their early decision in the matter.

Proposed branch line from Arcot station to Ranipet and Walajapet.

7. I forward herewith for the information of the Board, copy of a numerous signed petition addressed to the Madras Government, praying for the construction of a branch line from Arcot Station to Arcot Town through Walajapet and Ranipet. I also enclose copy of a letter from the Chief Engineer submitting a plan and estimate of the proposed line, as well as copy of a communication from the Traffic Manager furnishing notes and figures on the traffic prospects. The line should not in my opinion be extended across the river at first or until the trade between Arcot Station, Walajapet and Ranipet has been tested.

8. It is probable that the Government may address us shortly on the subject of the petition. The branch line in my opinion would be a valuable feeder to the South West Main Line.

Final estimate for alterations and additions at Bangalore City submitted for sanction.

9. With para. 11 of my letter No. 2110, I submitted an estimate for alterations and additions at Bangalore City amounting to Rs. 1,75,663, which was sanctioned by the Board in para. 14 of letter No. 891. With para. 5 of my letter No. 2153 a supplementary estimate was submitted for additional works amounting to Rs. 1,37,492, to which the Board accorded their approval in para. 19 of No. 904. With reference to the latter estimate I beg to bring to notice that in consequence of certain alterations in the details of the work, additional expenditure amounting to Rs. 27,461 will be incurred and I enclose copy of a letter from the Chief Engineer showing how this excess is arrived at. I also enclose a final estimate in which are included further works which have been found necessary for the completion of the arrangements at that station. Among the works specified in this estimate, it will be observed that reference is made to three buildings belonging to the Southern Mahratta Railway, viz., the Assistant Traffic Manager's bungalow, his office and the Locomotive Foreman's bungalow. The first two buildings stand on a portion of the plot II, which portion the Southern Mahratta Railway have after long correspondence, agreed to hand over to this Company. It has been arranged that the buildings which stand thereon shall be transferred to us at a valuation, and the Engineers of the two Railways have fixed this at Rs. 24,000. The Locomotive Foreman's bungalow which stands on another plot of ground transferred to this Railway, has been valued at Rs. 10,000. The amounts provided in excess of the fixed valuation of the buildings are required for converting them to suit our purposes. I now beg to request that the sanction of the Board may be communicated to me to the additional outlay required over and above the amounts already sanctioned. This additional expenditure is Rs. 1,17,275; thus:-

Total estimated outlay ..	Rs. 4,30,430
Amount already sanctioned. Rs. 1,75,663	3,13,155
Do. do. " 1,37,492	
Amount to be sanctioned ..	1,17,275

Conversion of Nandalur into an engine changing station

10. I submit herewith for the approval of the Board an estimate amounting to Rs. 76,143, for the conversion of Nandalur into an engine changing station. The abolition of Cuddapah and Renigunta as Locomotive stations and the substitution of an engine changing station between Kodur and Nandalur was included in the comprehensive scheme for the reduction of working expenses of the Engineering and Locomotive Departments submitted to the Board with para. 11 of my letter No. 2127, and the Board accorded their approval to the proposals relating to the Locomotive Department in para. 5 of their letter No. 896, and the Government of India gave their general approval to the scheme in their letter No. 2244 G, dated the 13th July 1894, embodied in Madras G. O. No. 411 R, of 24th idem. On sanitary grounds Nandalur has since been selected as the best station for the purpose. With my letter above quoted, I forwarded a copy of a letter from the Acting Locomotive Superintendent No. B. 248/3054 dated the 10th May 1893, in which it was pointed out that a saving of Rs. 42,615-5-0 per annum would be effected if the proposed change were sanctioned, and with the same letter I forwarded copy of a communication from Mr. Phipps, dated the 23rd January 1894, in which he estimated the saving to his department, if the change were carried out, to amount to Rs. 20,508 per annum. Cuddapah has always been an unhealthy station and it is necessary that it should be abolished as a home for the running staff. It is not unusual for a driver or a guard to contract in one night by sleeping at Cuddapah, fever which he is unable to throw off for many months. Sickness of this nature amongst the working staff is indirectly of great expense to the Company as men are frequently off duty on medical certificates, who would not have reported themselves to the Medical Department had the necessity for their sleeping at Cuddapah not arisen. I trust therefore that under the above circumstances the Board will accord their approval to the proposed expenditure of Rs. 76,143 required to carry out the change.

Premia paid by pupils and apprentices, how to be disposed of.

11. The question as to the manner in which the premia received from pupils and apprentices undergoing training at Perambur should be disposed of, was discussed at the last Officers' Meeting held on the 3rd instant. A pupil has recently entered the Workshops at Perambur on a three years course and agreed to pay Rs. 500, the first moiety of which has now been paid. In para. 17 of letter No. 853, the Board expressed the opinion that moneys of this kind should be utilised for the benefit of Mechanics' Institutes, Libraries, &c., established in connection with the Railway. With reference to this opinion, I beg to point out that the circumstances of these Institutes have since changed, some of them at out stations having been absorbed by the Madras Railway Library Association, while it is intended to absorb the others, as soon as Local Committees can be formed. I do not therefore think that the premium now received should be paid to the credit of either Perambur or any other particular Institute.

12. The unanimous opinion expressed at the Committee was that moneys received from apprentices should be paid to the credit of the Provident Institution and in this opinion I concur. Institutes benefit as a rule only one particular class of servants, while the Provident Institution benefits all employes who receive Rs. 15 and upwards a month and if the premia received from apprentices is divided amongst the 3205 subscribers to the Provident Institution, the money will be well distributed. The majority of the Company's servants do not make any provision for

their families other than subscribing to the Provident Institution, and I take it that it is in the best interests of the Company and the staff generally that the Provident Institution should be assisted by contributions such as the Locomotive Superintendent now has at his disposal.

13. I hope the Board will see their way to support the views held by the Madras Committee of Officers on the subject.

14. *Government Orders and Correspondence with the Consulting Engineer.*

G. O. No. and date.	Letter No. and date.	Subject.	Previous reference, if any.
199 R. 23-3-95.	...	FROM THE CONSULTING ENGINEER. Directing that the note by the Chief Auditor on the Capital and Revenue Accounts of the Madras Railway for the second half of 1894 be forwarded to the Government of India and to the Secretary of state.	
243 R. 6-4-95.	...	Approving of the Minutes of the Official Meeting and Stores Committee held on the 27th February last for the authorization of expenditure, &c., and directing that copies be forwarded to the Government of India.	
...	1219 10-4-95.	Enquiring with reference to the construction of Rolling stock for the Ennore Section, what will be the minimum amount of additional stock required to work the branch.	Para. 24 of No. 2189.
...	359 11-4-95.	TO THE CONSULTING ENGINEER. Applying for sanction to the temporary appointment (for 3 months) of Mr. C. R. Dallas, Executive Engineer, Mysore State Railways, (now on leave,) as Engineer-in-Chief, West Coast Surveys, during the absence of Mr. Strange on other duty.	

I have the honour to be,

Sir,

Your most obedient servant,

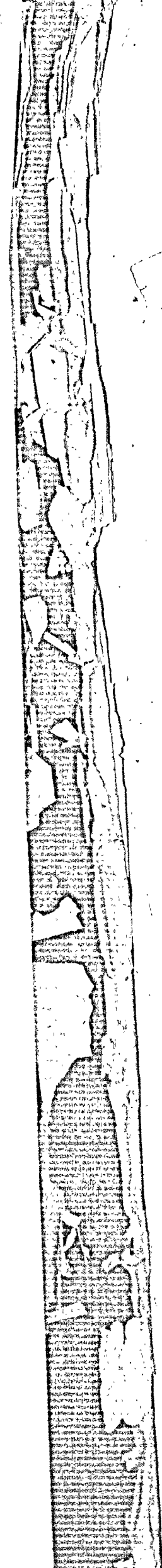
Wm S M V S.

Agent and Manager.

23809

[illegible]

Ami P



[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.]

Government of Madras.

PUBLIC WORKS DEPARTMENT.
RAILWAY BRANCH.THE Chairman, Chamber of Commerce
Madras

1897.

SIR,

I am pleased to acknowledge the receipt of your letter dated the 24th March 1897 on the subject of the gauge of the proposed

branch railway between Dindigul and Kizhampur, and in reply to inform you that your letter has been forwarded to the Government of India.

I have &

7/1/97

8/6/97

I am, Sir, the Chairman of the Chamber of Commerce in Kizhampur, and in reply to inform you that your letter has been forwarded to the Government of India.

Birlington Vizingham Riley

—H—

H. S. The Governor
The Hon. Mr. Blair
The Hon. Mr. Jones

I have modified the drafts in
the same initials in the Hon. Mr. Jones
Blair's & Jones's notes, and now
submit them for approval.

New Dept. G.O. just up here.
(Phys. F.). Shows all that is known
in that Dept about the Vizingham
Succession.

I have not yet been able to see
the Notes on Vizing. Harlow came in
the Marine (?) Dept. on they are in
circulation. but nothing in that file
need, I presume, delay the issue of
a reply to him in the cognate case of
the Bristol branch policy.

F.R.S.
8/6/77

As regards the reply to the Govt. to Blair's
indication of opinion on the Succession
it is the intention of the Bristol branch
to be ready submitted now. But the documents
on the Succession of Vizing, Harlow & Jones
are not yet ready to be submitted. But I
understand that on this point and the
ground above they will be submitted on
the Bristol branch the matter is not
up to Blair. It is now right in the
understanding, and it is an intention
now to understand & submit that, at least
reasonable time and that they have passed
and the Vizing Succession scheme still
remains in the clouds — & so the
Bristol branch may be permanently considered.
and, — I will not repeat the modified draft.
At the same time, I can't help suggesting
that further progress of the Vizing Succession
scheme would be stimulated & action rather
than delayed from action by a complete
set

18/6/77
F.R.S.
8/6/77

It is long remained immovable, - the
British scheme would be to have -

The Hon. Mr. Phipps says that it is not
and that the Royal Commission is dead
to the possibility of the early carrying
out of the "Phipps" scheme. But, he

seems to say that he thinks there is a
possibility of the work being taken up by
another agency. This seems a little

inconsistent. But, I will not oppose the
modification of this point in the Draft
letter - which the members desire.

I hope the letter to the Committee
is now as drafted, but I will not oppose
the alteration proposed by the members.

No, not another agency; the same,
but without the Maharajah's guarantee.
H.S.

As I have pointed out in the Draft letter
to the C. of C., a copy of the letter should be
sent, no letter.
H.S.

A. I regret that I cannot follow H.S.
here. The Draft reply, as it stands,
fully discloses the Hindi branch
and denies its being made on the broad
range. In this, as in other respects, it is
passing views - Of course, if the
Hindi branch is finally fallen through,
the Hindi branch may be required,
but I would not say more at present.
H.S.

14/6/97

The Draft seems to have been
rejected on other

17/6/97

Birlajitum Kriangan Ry.

H.S. The Governor

To H.S. the Governor for final
order about the proposed draft.
in view of the Hon. Mr. Phipps'
statement which the Hon. Mr. Phipps
has advised.

F.R.S.

18/6/97

7- 419 R dated the 25th 97

Govt of India. P.W. Dept.

Recd. Govt. of India Ltr No. 154 P.W. C. dated the 25th Jan 97.

The Collector of Vizagapatam Ltr No. 309. dated the 6th June 97

Chairman, Indian Branch of Commerce Ltr dated the 29th March 97

Govt of India Ltr No. 546 P.W. C. dated the 3rd April 97.

The Govt. of India P.W. C. 25th June 1897

to the Chairman Indian Branch of Commerce.

Order. That Ltr No. — dated the — June 97. be

sent to the Govt of India

That Ltr No. — dated the — June 97. be

addressed to the Chairman Indian Branch of Commerce.

That the Collector of Vizagapatam be informed that

a copy of Ltr No. — of the Govt. of India has been forwarded

to the Govt of India.

This order is in proper form. It should run as shown in and with

7/6/97

14/6/97

8/6/97

to the Collector of Vizagapatam
" Chairman Indian Branch of Commerce

Government of Madras.

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

To

THE SECY. TO THE GOVT. OF INDIA,

P. W. DEPARTMENT.

11/11/97
11/11/97

SIR,

I am pleased to acknowledge the receipt of your letter No. 576. B.C. dated the 3rd April 97 forwarding copies of correspondence in the subject of Sir Brindley Foster's and Mr H. G. Trenchard's proposals for the construction of railway from Vizianagaram to Bhubaneswar respectively, and asking for an expression of the opinion of this Government on the Trenchard proposal to alter the gauge of the Vizianagaram Bhubaneswar line from the 2' 6" to the ^{4' 6"} ~~4' 0"~~ standard gauge.

2. The earlier letter of the Govt. of India, viz your No. 134. B.C. dated the 25th Jan 97 still remains ~~unpublished~~. 2. The letter the Government was asked to say whether the Bhubaneswar Branch had been made under the Railway Act or under the Mining Act. When the letter was written no question had arisen about the standard gauge. In reply I am now desired to acquaint you with

the fact that the Bhubaneswar Branch is now being constructed under the Mining Act.

3. - As regards the question of the gauge of the proposed
Wilmington & Burlington Branch, I am instructed to offer
the following remarks. It must be understood that it is

If the Virginia-Portland line should not be built, the stream of east traffic ^{will} probably soon be attracted to the R.O.P., and ~~traffic~~ ^{it will} probably not even be tempted to take the Virginia-Bristol route ^{on the way - but} ~~to Washington~~ without ^{all other things being equal} embarking at Bristol, where the carriers ^{will} make up their return load ^{of} ~~goods~~ ^{staple} & passengers. If however the Portland branch should be built, and the same as if that branch should therefore be extended inland to Keosauqua, the east and west through freight supply itself in the greater number back of the railway, and goods

4. Bearing in mind, and being fully conscious of, the immense importance to the trade of the District, second, of a good boat harbour at Vizagapatam, the Government is very anxious to the adoption of any policy which would be likely to deter capitalists from coming forward ^{with offers} to construct the Thangavood's smaller harbour scheme. His Excellency the Governor of Madras in Council is of opinion that the grant of a concession for the making of a standard gauge connection between Brimbatnam and the S.C.R. would have the effect of keeping capital away from Vizagapatam harbour, and ~~that~~ ^{for this reason he would} ~~therefore~~ ^{deprecate} the grant to L. B. Lohar and Co. of the ^{standard gauge} concession for which they have

5. The chief justification of the smaller harbor scheme being the lowering of freight and of handling and landing and shipping charges, which are expected to result from the substitution of large cargo boats in place of the thimble boats which must continue in harbors to be used at Orinogation, it appears to the Government to follow that once the smaller harbor scheme is in working order at Kidz, the British middlemen will no longer be able, even with the assistance of a standard gauge boat, to obtain the Parbatopia trade in this or land, the British boat, if made on the standard gauge, would probably then become unnecessary and that the whole business of the private mercantile Company, would, for no reason be undoubtedly.

Stefan - just for the one tape - of course it is?

6. - As the expense is to be a very small one, it is in the opinion of the smaller a better harbor scheme being carried out, it is in the opinion of this Government the right policy to promote the development of Vizagapatnam and to avoid prevent the injury to the interests of the S.C.B. which must result from crossing it by what cannot be made - the the a point line. For these reasons the Government in Council cannot favour the proposal to transfer the Vizagapatnam Bridge to be built upon the standard gauge, and would recommend that Sir D. D. D. be left, showing its currency with the Government for a 1:6" gauge while they are now in possession of.

7. - If however the requisition of its promotion for the formation of a Company to build and work the smaller Vizagapatnam Harbour scheme and if the - wharves of the Port of Vizagapatnam, should unfortunately come to nothing, this Government in Council would not feel himself justified in doing any longer to the Bridge.

8. - As regards the Bridge, I am of report what I have indicated to say in June 11 of my letter on the general Bridge programme for the Presidency, No. 332. D. dated the 10th May 97. I express a hope that the requisition which are in progress for the important bridge may come to a successful issue.

9. - In reply to the inquiry contained in the first two lines of your letter No. 159 D.C. dated the 22nd June 97. as to whether the Govt. are any nearer to offer and spend time in building to be included in any agreement entered into for the Bridge, I am indebted to say that things seem somewhat better as yet for such an agreement of opinion to be of much practical value.

I have the honor to be, Sir, your obedient servant,
 The Secretary to Government,
 Madras.

31st DECEMBER 1891, No. 3106 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

From the Engineer-in-Chief, East Coast Railway, to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Waltair, 20th November 1891, No. 728.

I have the honour to enclose copies of correspondence as per margin and to request the orders of Government on the subject.

- (1) Letter from Messrs. Hall, Wilson & Co., to the Chief Storekeeper, dated 6th November 1891, No. B. 1168.
- (2) Letter from the Chief Storekeeper, to Messrs. Hall, Wilson & Co., dated 9th November 1891, No. 7400, covering copy of his No. 496, of 10th July 1891.

It will be seen that the S.S. *Borghese* was chartered on the express condition that she should provide all apparatus for discharge and that the charterers should have the option of taking delivery at 200 tons per weather working day and that, in event of such option being exercised, rails and girders, respectively, instead of

the freight should be 14s. and 17s. for 14s. 6d. and 17s. 6d.

On arrival at Cocanada, this option was exercised and notice served on the captain accordingly, which he failed to meet.

It will appear from the correspondence and can be proved by evidence that the ship's appliances, owing to their antiquated nature, were unequal to this rate of discharge.

The owners now claim the higher rate of freight and demur to the deduction of six pence on the ground that the reduction in freight was intended to benefit the owners by securing less detention.

In fact, the rate of freight they contend should depend on the actual rate of discharge and not on the option to be exercised by the charterers.

I cannot myself see that the physical impossibility they refer to affects the case. If their vessel was unable to put out the contracted amount, they should not have entered into agreements to deliver the tonnage specified. I beg, however, to refer the question to you for the favour of legal opinion and orders on the subject.

ENCLOSURES.

From Messrs. HALL, WILSON & CO., to the Chief Storekeeper, East Coast Railway, dated Cocanada, 6th November 1891, No. B. 1168.

[S.S. *Borghese*.]

We have the honour to submit the following extracts from letters addressed to us by Messrs. Raeburn and Verel, owners of the above vessel.

Under date 20th August last they wrote:—

"We see that you only credit us with 14s. and 17s. instead of 14s. 6d. and 17s. 6d., but we demur to this settlement and we hold that we are not entitled to any reduction on account of the steamer not being able to put out the 200 tons per day. It was a physical impossibility to do so. There could be no sense or meaning in the reduction of the rate, unless it was that the steamer would be benefited by getting the quicker despatch, that is, of course, if she were able to take advantage of it; but it is absurd to suppose that the boat is both to be

kept longer and get a reduced freight for that reason. The charterers said in effect by the wording of the charter that, if our boat were to get better despatch than the minimum, we should suffer a reduction of freight for that benefit; that, if the steamer got worse despatch than the minimum, we got an additional freight for it; but it is utterly absurd to suppose that the mere nomination of the receivers to take 200 tons per day entitles them to a reduction if the steamer cannot discharge that quantity. There is no guarantee in the charter that the steamer is bound to discharge the 200 tons if the Government can take it from her. We wanted the better despatch, as our telegram showed, but we were told that it was a physical impossibility. The captain says that the rolling of the ship, the coolies being unaccustomed to the work, and the construction of the steamer rendered it impossible to do better work than was done. We will be glad if you will kindly send us a remittance for the difference of freight."

In reply to the above we informed them that we did not think that Government would be prepared to admit their contention, but that we would be happy to lay their views before you if they desired us to do so with a view to obtaining payment of the 6d. a ton, which they hold to be still due to them on the steamer's cargo delivered at this port.

They reply as follows under date 16th ultimo:—

"We have your favour of 12th ultimo and certainly wish you to put forward our claim for the return of the 6d. per ton deducted from the freight. We think that, if the facilities at the port of Cocanada are not such as enable an ordinary steamer to discharge 200 tons per day, it is a very great hardship, indeed, that we should have to pay for despatch which it is simply impossible to get. We can add nothing to the arguments we already used on a former occasion, which we think are very convincing and are certainly in accordance with common sense, and we trust and believe that, if the matter is pressed, we will get the return. If we are denied it on your side, we must take up the question here with the Stores Department, for it is a matter of principle which we are not prepared to allow lightly to pass."

We request you will kindly place this before the Engineer-in-Chief for submission, if necessary, to Government. If Messrs. Harburn and Vercell's views be confirmed on reference, we shall submit our claim on their account for the 6d. a ton, to which they hold themselves entitled.

From the Chief Storekeeper, East Coast Railway, to the Engineer-in-Chief, East Coast Railway,
dated 9th November 1891, No. 8149.

As requested by Messrs. Hall, Wilson and Co., I have the honour to enclose their No. B. 1163 of 6th instant, relative to a claim for an extra 6d. per ton for freight on rails and girders brought out from England by S.S. *Borghese* and unloaded at Cocanada.

Charter party gave Government the option of taking 200 tons, in which case there was to be a reduction of 6d. per ton from chartered rates, viz., 14s. 6d. for rails and 17s. 6d. for girders.

The following is what is noted in manuscript on charter party:—

"It is agreed that charterers have the option of taking delivery of the cargo at the average rate of 200 tons per weather working days (Sundays and holidays excepted), in which case the rate of freight shall be reduced by 6d. per ton from rate as per charter."

On arrival of steamer Captain Jefferson was served with a notice, intimating our willingness and ability to take 200 tons daily and that he would be furnished with boats capable of carrying that tonnage.

He failed to discharge at that rate and Messrs. Hall, Wilson and Co., the agents of the owners, billed for and were paid at the rate of 14s. and 17s., respectively, for rails and girders.

In connection with this, I would refer you to your No. 1221 of 10th July last and enclose a copy of my No. 1221 of 16th Idem to Messrs. Hall, Wilson and Co., of which Captain Jefferson was sent a copy of the first three paragraphs.

In his No. 513 of 6th July 1891, Mr. Kepping writes to me as follows:—"The charter party clearly lays down that the ship *Borghese* is to provide all necessary appliances for discharging and that is just what the *discharge* has not."

Other ships of a different build and furnished with modern appliances for discharging, unloading at or about the same time of the year, have succeeded in putting out an average of 200 tons daily, and, if they have not done so, have not demurred to being dealt with as the *Borghese*, i.e., being paid for freight at lowest rate. The owners of the ship must have known its capabilities for discharge and the nature of the port to which bound and the facilities it afforded for rapid discharge or otherwise when they chartered their ship, and, if they failed in discharging what they allowed us the option of taking, owing to want of appliances for unloading and build of the vessel, it seems that they should suffer for accepting conditions which they now say it was physically impossible that they could carry out. On this point, I need not refer to Madras Government No. 1845 R., Public Works, of 10th August 1891, of which I enclosed copy under your No. 1221 of 16th Idem.

Other vessels were able to average an output of 200 tons in spite of the roughness of the sea, as they were better circumstanced as regards space for stowing cargo and had far superior appliances for discharging it.

From the Chief Storekeeper, East Coast Railway, to Messrs. HALL, WILSON & CO.,
dated 10th July 1891, No. 1221.

The Engineer-in-Chief, East Coast Railway, in forwarding me copy of your No. B. 514 of 6th July 1891 asks me to communicate with the ship and say that "if they cannot unload clear of the side the ship must unload as best they can at Calcutta or elsewhere."

2. As the ship's owners accepted the cargo knowing what appliances they had for unloading and what port the ship was going to, Government can incur no responsibility or liability in the matter and of course expects the girders to be discharged without any extra expense at Cocanada.

3. The Engineer-in-Chief does not order the ship to Calcutta, but, if it cannot discharge here or at Cocanada without risk to you, the commander must do so where he can.

4. I am sending a copy of this letter to Captain Jefferson.

5. When I was at Cocanada, you apparently did not anticipate this difficulty, as you told me the girders could be unloaded.

ORDER—dated 31st December 1891, No. 3106 R., Public Works.

His Excellency the Governor in Council is of opinion that, owing to the want of suitable appliances on board the S.S. *Borghese* for landing stores for the East Coast Railway at Cocanada, that vessel was unable to carry out the terms of its charter party and that the charterers have been prejudiced by slow delivery. The Government, therefore, declines to admit the claim of the owners to the higher rate of freight, viz., 14s. 6d. and 17s. 6d. per ton for rails and girders landed at that port.

2. The circumstances of the case will be reported to the Secretary of State.

(Here enter No. 3106 R., Public Works, dated 31st December 1891.)

(True Extract.)

(Signed) W. H. COAKER, Lieut.-Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways,
Engineer-in-Chief, East Coast Railway,
Examiner, East Coast Railway Accounts.

Edw. A. D. Nairn,
Secy. to Govt.

RAILWAY.

Govt. of Madras.
PUBLIC WORKS.

Dated December, 31st.

Recd.

Encl.

G.O., 31st Dec. 1891, No. 3106 R.

DECEMBER.

Stores

Declining to admit the claims made by the owners of the SS. *Dorghese* to the higher rate of freight on rails and girders landed at Cocanada by that vessel for the East Coast Railway.

RAILWAY.

Govt. of Madras.
PUBLIC WORKS.

Dated April, 12th.

Encl.

Encl.

G.O., 12th April 1892, No. 952 R.

APRIL.

Stores

Despatch from the Home Government
passing orders on the claim made by the
owners of the S.S. *Borghese* for payment
of freight on rails and bridgework landed at
Cocanada by that vessel for the East Coast
Railway, communicated to the Engineer-in-
Chief concerned.

G.O. No.

DATED

Office Notes

[Despatch Abstract.]

The proposed broad gauge Veringapalan Branch & its probable influence on the fate of the projected Company for constructing the smaller Veringapalan Harbour.

Veringapalan Harbour - its probable influence on cost of freight and landing & shipping charges.

lency and Honorable Members will recollect that Mr. Turner received a 2' 6" gauge concession, but was held to have forfeited it because when offered a 3' 6" gauge concession in lieu of it, he asked such terms as it was impossible to accept. We have said that to obtain. That settles the Parvatipur line for the present. We have said that we prefer a 5' 6" gauge and Mr. Turner will doubtless write saying that he will not accept it. Mr. Turner has already got a concession for a 2' 6" gauge from the Government, and the Major has got a concession for a 2' 6" gauge from the Government.

tain. That settles the Parvatipur line (which Mr. Turner has already preferred to a 5' 6" gauge and Mr. Turner will doubtless write him) but Mr. Turner has already got a concession for a 2' 6" gauge line from Vizianagram to Bimlipatant. His Highness the Maharajah of Assam has offered him a guarantee of interest for a brief term of years on the narrow gauge line. But Mr. Turner is not prepared to lay a 2' 6" gauge line down to Bimlipatant from Parvatipur in the hope of their getting a branch on the route from the Central Provinces, so he has written to the Government of India saying that if allowed to raise the money for the branch, he will give Branch Line Terms he hopes to raise the money. And at the end of the Maharajah's guarantee.

12. The Government of India have reported that, though the Government of Bombay considered a *Branch Line*, indeed it is just the reverse, and that the Government of Bombay are running athwart the present line, and that the Government of Bombay have not yet decided whether the question of whether the line should be extended to the north or south should be made broad gauge or not has to be referred to the Government of India.

[illegible]

14. The money to be spent on a broad gauge line is to be raised by selling the land to build the Voznesensk station. If Mr. Voznesensk fails to do this, it is his own look out if he fails; but Government always stands behind the City for that sort of thing.

15. We ought, I consider, to go on steadily trying to do the best possible good thing at a time, and to do all we can to promote the welfare of the people, and as a necessary consequence to do nothing that would tend to bring us into collision with that welfare. I believe, however, that in the long run, the interests of London and Liverpool Shipping Masters will be found to be the same as those of the people, and that the interests of the people will be found to be the same as those of the Shipping Masters. I believe, however, that in the long run, the interests of London and Liverpool Shipping Masters will be found to be the same as those of the people, and that the interests of the people will be found to be the same as those of the Shipping Masters.

10. Recognizing all this, that half I have mentioned in the last
 Agency and the Honorable Members to assist the Government of India in the
 Government of India in the establishment of a Commission of Inquiry into the
 formation of a Commission of Inquiry into the establishment of a Commission of Inquiry
 at Vengalpetam by private enterprise, it is to be noted that the Commission
 might have the effect of bringing about the establishment of a Commission of Inquiry
 likely to have the effect of bringing about the establishment of a Commission of Inquiry
 equipped part the large scale of the Commission, it is to be noted that the Commission
 District. That these considerations have induced the Commission of Inquiry
 that it will be best not to modify the Commission of Inquiry, it is to be noted that
 and Mr. Turner for a "C" bridge railway line to Vengalpetam.

[illegible]

I have not been able to see you for some time, as with your Excellency, I am in the disadvantage of not being able to go abroad. But I am not fond of the soft bed of a sick room, and I am in favour of a comfortable and open air education. I had a letter from Mr. R. yesterday, and he says that he is expected shortly from Railway, and that he will be able to see you. With the exception of the station, he says that the new works will be very good, and that the station is very well adapted for the purpose. I am sure that you will be very much interested in the new works, and that you will be able to see them very soon. I am sure that you will be very much interested in the new works, and that you will be able to see them very soon. I am sure that you will be very much interested in the new works, and that you will be able to see them very soon.

[illegible][illegible]

F. J. E. S.

[illegible]

The Name of H. is put in red with other papers on the same subject.

A. E. H.

A. E. H.

37 1-11

T. H. E. THE GOVERNOR.

T. H. E. THE GOVERNOR.

2. Your Excellency will see that when in 1860-61 large quantities of material were being imported at this time, Your arrangement and other coast ports, for the construction of the Baku-Caspian Railway, it was considered by the shipping broker in England to be worth six pence, practically six annas, per ton if a ship could be discharged at the rate of 40 tons per day more speedily than at the minimum rate of 10 tons per day.

3. Thus if, instead of being carried into cargo boats, as would be easily possible, ship could put say 100 tons overboard into cargo boats in the back water, the charterers, with a harbour, and with proper safety appliances in the back water, the charterers would secure a reduction in freight of at least a very fair share of 2 shillings, or say 16s. 18s. per ton, on an average freight of say 15 shillings per ton; a very important reduction.

4. Therefore, I think, he said, that once home shipping brokers had got to know that a discharge of 1,000 tons per day could be safely calculated on, instead of its being only a contingent one, *whether as in the case referred to, a permanent drop in freights of a very much higher figure than 2 shillings would*

ensue. In my judgment the permanent drop would be one third of present freights; because, if they could only calculate with a fair degree of certainty, owners could make forward bargains, at the same or at other ports, for return cargoes.

F. J. E. S.

28-4-97.

I am obliged to Mr. Spring for this additional information. I will only remark that the passage italicised by me in para 4 seems to imply the existence of a breakwater, under which the shipping could lie at all times and load and discharge. This would mean the larger and more costly scheme of Harbour improvement. The paper may be placed with others on the same subject.

A. E. H.

May I further explain to your Excellency that the sole purposes of the proposed breakwater of the smaller, or 6 to 10 lakh, scheme for the harbour, is to get rid of the bar, and thereby to permit of the use of cargo boats instead of masullah boats. There is no idea, or necessity, of ships lying behind this breakwater. If ever this short breakwater is extended seawards, to form the 50 lakh harbour, ships will shelter behind it. But for all purposes of securing a daily discharge of 400 or 500 tons instead of, as heretofore, 150 to 250 tons,—that is for all purposes of in time securing lower freights, all that is wanted is the smaller breakwater, the sole duty of which is the Engineering duty of removing the bar; by, 1st, concentrating the scour of the backwater, and 2nd, keeping back the sand which is swept along the coast by the prevailing currents.

I think that, if I have succeeded in making this professional point clear, your Excellency will view the whole question from a new standpoint.

F. J. E. S.

30-4-97.

I thank Mr. Spring for the above note. But, it still seems to me that he bases his figures on the assumption of a smooth water roadstead at Vizagapatam. Now, I am credibly informed that the Vizagapatam roadstead is by no means a smooth water one.

A. E. H.

4-5-97.

Mr. Spring has furnished figures in support of his contention that Vizagapatam with a boat harbour will be a superior port to Bimlipatam. It would seem that Mr. Spring has based his calculations as to what lighters could do at Vizagapatam on the assumption that the water is always smooth there, as at Coconada; whereas, I believe this is by no means the case. Again, he counts largely on the reduction of European freights, but I suppose much of the trade of Vizagapatam is with other Indian Ports, and would not share in this advantage. The Chamber of Commerce might be asked to review Mr. Spring's statement.

Assuming the accuracy of Mr. Spring's views as to the possibilities of Vizagapatam Harbour, improved by the cheaper scheme, and assuming also that there is an early and good prospect of that scheme being carried out, I think we might say that it is the right policy to promote the development of Vizagapatam, and to avoid competition with the working of the East Coast Railway; and that therefore we cannot favour a broad-gauge line to Bimlipatam, as such a line would tend to draw traffic from Vizagapatam, and to reduce the traffic receipts of the East Coast Railway.

If, however, we are not convinced of the superiority of Vizagapatam, over Bimlipatam as a port, when the minor scheme is carried out, or if there is no early prospect of that scheme being carried out, I should give Bimlipatam its broad gauge branch.

13-5-97.

A. E. H.

VIZAGAPATAM HARBOUR.

ITS PROBABLE INFLUENCE ON COST OF FREIGHTS AND LANDING AND SHIPPING CHARGES.

TELEGRAM—from the Consulting Engineer for Railways, Madras, to Messrs. Hall Wilson & Co., Coconada, dated 9th April 1897.

D-126, please wire what saving may be expected over masullah boat landing and shipping charges, per ton, after a port has been made fit for large cargo barges like yours at Coconada. Also what improvement in daily tonnage handled.

LETTER—from Messrs. Hall Wilson and Co., Coconada, to F. J. E. Spring, Esq., C.I.E., Consulting Engr. for Rys., Madras, dated Coconada, 12th April 1897.

We have the honor to acknowledge receipt of your telegram of 9th instant.

"D-126, please wire what saving may be expected over masullah boat landing and shipping charges, per ton, after a port has been made fit for large cargo barges like yours at Coconada. Also what improvement in daily tonnage handled."

to which we replied on 10th idem as follows:—

"Your D-126, saving in shipping charges about thirty per cent. in a port like Vizagapatam; quantity cargo handled daily would practically be limited only by ship's capacity for work."

Confirming the above messages we beg leave to place before you the grounds on which our reply is based. The rate of masullah boat hire at the neighbouring ports of Vizagapatam and Bimlipatam, where masullah boats are almost exclusively used, is Rs. 1-8 for 35 bags, which works out at nearly Rs. 4-8 per 100 bags, as against Rs. 3 per 100 bags which we have taken as the average rate at Coconada where shipment is effected in large lighters, carrying from 200 to 800 bags. We may say, however, that we believe Rs. 3 is considerably above the average; for although during times of exceptional pressure the rate has been known to touch Rs. 4 and Rs. 4-8, yet as a rule there is no difficulty in getting cargo taken alongside at Rs. 2-8 per 100 bags and even Rs. 2.

If we may venture to assume that your inquiry is not unconnected with the proposed harbour works at Vizagapatam, we are very confident that the saving at that port which will be effected in the shipping charges by the creation of a boat harbour would be nearer 50 than 30 per cent. Our conviction rests on the certainty that the large barges which it would be possible to utilize could and would make at least two trips a day, against one trip which is the maximum possibility at Coconada. The distance from the harbour to the shipping being so small, two or three trips would be an ordinary day's work for the largest lighters, and the first effect of the increased earning power which this would represent would be a fall in the rate to probably Rs. 2 per 100 bags. It must also be borne in mind that there would be a great saving to the shipper in the matter of bags returned damaged. We think therefore that 50 per cent. may very safely be estimated as a saving in shipping charges.

As regards landing charges, it is less easy to arrive at a reliable conclusion as to the saving that will be effected, but there can be no doubt that the facilities which would be afforded by the use of large craft would make it possible to land cargo at rates very much lower than now obtained.

Lying within easy distance of the shore and served by large lighters there seems to be no limit to the rate at which a ship could discharge or load other than her own capacity to put out or take in cargo. With the security and protection which the harbour would afford there would be no difficulty in employing, as they certainly would be employed, steam launches, to place the lighters alongside and tow them back to the landing place when loaded. So long as ships have to lie in an open roadstead so long will there always be a certain amount of delay inseparable from the shifting of the boats; but the delays and inconveniences which arise from having to constantly stop work on board, whilst masullah boats of small carrying capacity are shoving off and others being brought into position under the ships gangways, would be reduced to a minimum by the substitution of large lighters equipped and run on an organized system.

TELEGRAM—from the Consulting Engineer for Railways, Madras, to Messrs. Hall Wilson & Co., Coconada, dated 12th April 1897.

132-D. How many shillings per ton improvement on say thirty shilling freights might be expected after first few years if, with aid of boat harbour, ships could turn round as fast as their own derricks could empty and fill them, present high freights being largely due to slow discharge given by masullah boats.

LETTER—from Messrs. Hall Wilson & Co., to the Consulting Engineer for Railways, Madras, dated Coconada, 13th April 1897.

We have the honor to acknowledge receipt of your telegrams of 12th instant as follows:—

"132-D. How many shillings per ton improvement on say thirty shillings freights might be expected, after first few years, if, with aid of boat harbour, ships could turn round as fast as their own derricks could empty and fill them; present high freights being largely due to slow discharge given by masullah boats."

to which we have replied in the following terms:—

"Your 132. Homeward freight largely governed by available tonnage in port. Construction of Raipur and feeder lines with terminal harbour and landing facilities would attract imports to Vizagapatam as convenient distributing centre, and ships thus available would accept low homeward freight to avoid change of port. Light expenses and quick despatch should reduce freights to level of Bombay rates."

Confirming the above telegrams, we think there is little that we need add to our message. We understand that the construction of the Raipur line is likely to be sanctioned and put in hand at no very distant date; and on this, the Parvatipur line, and other feeders, which will from time to time be brought into existence, we largely depend, in conjunction with the harbour, for the future development of Vizagapatam. The facilities which Vizagapatam will afford for cheap import and distribution of goods will unquestionably attract the attention of merchants; and ship owners will not be likely to press for high outward freights to a cheap port where there are no pilotage dues and no risks in navigation, and where return freight is a certainty. Freights from various causes are subject to such fluctuations that it is impossible to make any very reliable forecast; but we think that in a very few years' time Vizagapatam and Bombay rates will be on about a level.

A point which we anticipate will further tell in favor of Vizagapatam, is that steamers will probably be able to proceed direct from Aden without coaling at Colombo. Vizagapatam would become a coaling port, and for the homeward voyage vessels would there take sufficient to carry them back to Aden or Port Said. This would reduce expense and save time, two considerations which will have their due weight with ship owners.

D. O. Letter from T. Kipping, Esq., of Messrs. Hall Wilson & Co., to F. J. E. Spring, Esq., C.I.E., Coconada, dated 12th April 1897.

Your official telegram of 9th instant was passed on to me at Waltair, and was replied to under my instructions. I am now addressing you officially elsewhere, but I may here say that I am confident my forecast of what will happen at Vizagapatam, when the Harbour sounds the knell of the masullah boat, is not at all overdrawn. I am aware we have the whole of the vested interests of Madras arrayed against us now, and that Calcutta will also go solid against us as well, as soon as, or before, she is linked up with the East Coast Railway. It is going to be the old story of Karachi and Bombay over again: only in this case the Madras firms have the additional spur of the jealousy with which they are good enough to honor us. We want to state our case, point by point, as occasion arises as fairly and as conclusively as possible; and in my reply to your inquiry I have followed this rule, neither exaggerating nor underrating what I believe to be amongst the benefits that will accrue to Vizagapatam, and to trade, by the creation of a Harbour.

TELEGRAM—from the Consulting Engineer for Railways, Madras, to the Manager, East Coast Railway, dated 9th April 1897.

D-125. Please wire ordinary masullah boat rates, per ton, approximately, at coast ports, for landing and shipping, and what tonnage per day can be ordinarily handled from or to ships at Vizagapatam and Bimlipatam.

TELEGRAM—from Manager, East Coast Railway, Waltair, to the Consulting Engineer for Railways, Madras, dated 13th April 1897.

M-50. Your wire D-125, dated 9th instant, ordinary rate for masullah boats at Vizagapatam is one rupee eight annas per trip; each boat carries about two and half tons and makes four to five trips daily. About four hundred tons on ordinary day's work, much the same at Bimlipatam.

TELEGRAM—from the Consulting Engineer for Railways, Madras, to the Manager, East Coast Railway, Waltair, dated 14th April 1897.

140-D. Please send me for perusal and return the early documents about landing stores at Vizagapatam, showing a reduction in freight charges from England if more than a certain tonnage landed daily.

LETTER—from the Manager, East Coast Railway, to the Consulting Engineer for Railways, Madras, dated Waltair, the 21st April 1897, No 3208/190.

With reference to your telegram No. 140 D., dated 14th April 1897. I have the honor to forward herewith an extract from the Charter Party of Steamers which come out from England with Stores for the East Coast Railway, from which it will be seen that in the event of delivery being taken at the average rate of 200 tons per weather working day, (Sundays and holidays excepted), the rate of freight is reduced six pence per ton from the rate of Charter. Also if the Steamer is ordered to be discharged at only one of the two Ports named in the Charter, viz. Coconada or Vizagapatam, the rate is reduced six pence per ton.

2. In this connection, please refer to Madras Government Orders No. 3106 R., dated 31st December 1891, and No. 952 R., dated 12th April 1892.

Extract from the Charter party of S.S. "Bellisloe" dated November 1895.

Extract from the Charter party of S.S. "Bellisloe" dated November 1901

Delivery at the average rate of 150 tons per weather working day, Sundays and holidays excepted. It is agreed that Charterer has the option of taking delivery of the cargo at discharging ports at the average rate of 100 tons per weather working day, Sundays and holidays excepted, in terms of charter, in which case the rate of freight shall be six pence per ton additional to chartered rate. Charterer also has the option of taking delivery as above at the average rate of 200 tons per weather working day, Sundays and holidays excepted, in which case the rate of freight shall be reduced six pence per ton from the rate of charter; should steamer be ordered to discharge at only one of the within named ports, the freight is to be reduced six pence per ton.

Distance Vizianagaram to Vizagapatnam 59
" " " Bimili 16

" " " Brind 16

Difference in favor of Brind. $\frac{32}{28}$ miles.

At $\frac{1}{5}$ in per per and per with this difference

Income = Savings of $\frac{27 \times 28}{5 \times 12} = 0.13$ per ton

in forma di Binali.

At $\frac{1}{10}^{\text{th}}$ in the swing would be of
0/6/6 per hr.

Freight to a good port like Calcutta
from England are from 7^s 6^d to 10^s per
ton cheaper than to a monsoonic port.

Interest at 5% on 10 lacs is Rs 50,000
per annum. If the whole trade of a
firm were 10,00,000 turn per annum
the charge to cover interest would be
Rs 50,000 per turn.

Both from Master Attendant. St JH Taylor RN.
 & Lieut ANZ. Graham. No ⁷⁵⁸¹ 120. Date 17th Aug 1901.

Jan 10 - 8.0
 10th Dec 82 "Bout of 20 ton
 would be a little different - from 7.5 up to 10.0
 but it's hard to say - I have a large amount of 20 ton

Hall Wilson was that if cargo boats be
substituted for smaller boats the landing &
shipping charges will be one third lower. &
that cargo duty would also be practically limited
by rising charges for work.

P.W. ... 22/3/95

H.E. The Governor

Hon. Mr. Blair C.I.E.

Hon. Mr. Goss C.I.E.

The Chamber regards Brindisi as, on every point of view a superior port to Visigo; and the fact that the former does a larger trade than the latter, supports the statement of the Chamber.

The Chamber states that the facilities of the Port of Harbour on Visigo, assuming that such a Harbour is ever constructed, will not in any way compensate the merchants of the District for the extra cost of the carriage of goods by rail to the Harbour and the enhanced dues and wharfage charges.

Mr. Spence maintains the contrary opinion.

Can Mr. Spence put forward figures and other proof of his contention?

The petition, dated 24th March 97, of the Indian Chamber of Commerce for the Government's support of a scheme for a standard gauge branch Ry. to Brindisipatan.

~~Mr. Goss~~

If there is any truth in the report that His Highness the Maharaja of Vizianagaram has offered, or is prepared, to guarantee interest on the capital cost of the proposed 6 1/2 mile branch line scheme for Visigo. The continually reiterated assertion of the partisans of Brindisi that their port is a better port than Visigo, are likely soon to lose all their force. I am not sure that they at any time had very much force. The trade of Brindisi has long been considerably larger than that of Visigo, but that was due to the fact that the coast road from ... to the interior ...

the Vizag trade has hitherto been
chiefly the north and south trade.
Should the boat harbor be brought to
a practical issue and should Brindli
not be connected with the S.C.B. by
a broad gauge branch, the two streams
of trade which have hitherto
intersected at Viswainagar will
in future, and especially if the broad
gauge branch to Parbhajin, Bobbili,
and Salur be built, converge at
Viswainagar, instead of intersecting
at Viswainagar and keeping each
on its way to Vizag ~~and~~ Brindli.

It will be for the best interest of
the producers and of the traders of
the interior generally, that their goods
should be led by the easiest and cheapest
channels to a good port. Because a
good port means cheap home freight
and cheap handling. We cannot
make the good port, as Brindli is
not susceptible of such such improvement
as is ^{implicit in a} ~~implied in a~~ boat harbor
much less by a large inland harbor.

It would thus be most shortsighted

a standard gauge railway merely for
the sake of bolstering up for a few
years longer a trade which is bound
to be killed in a few years, however
we foster it, if Vizag get a boat harbor.

I think that every encouragement
ought to be given to such local enterprises
as may be found to build a
tramway or a 2'6" gauge railway from
Brindli to Viswainagar. But I shut
for a moment behind the capital for
within this journey or so for the
standard gauge branch will be
furthering.

Since 1889 the Brindli traders
have been calling attention to themselves
through the Madras Chamber of Commerce,
Archibald & Co. the Farmers, public
meetings, &c. &c. with a degree of
persistence which is very laudable, and
of boldness which is out of proportion to
the magnitude of the capital sunk by
them in this business at that port.

But that is no reason why they
should get more than their fair share of
the railway grant, especially as it is
estimated that the

of a rate of interest can be
earned on the money that they demand
should be spent on their behalf. I should
not be surprised if the capital cost
of two or three miles of railway would
suffice to buy up the whole of their
freedom and office and rebuild them
at Vizag: and the cost of that branch would
more than suffice to give Vizag its smaller harbour.

We may send a reply to the Chamber
to the effect that the question of the
connection of Brindisipatnam with the S.C.R.
has, as they are doubtless aware, received
the careful attention of this Government, and
that in view of the chance of the improvement
of the harbour of Vizagapatnam, and also
of the probable consequent diversion
thereof of the trade from the interior
which has hitherto, in fact, found its
way to Brindisipatnam, Government do not feel
justified in supporting a scheme for
the expenditure, on a branch railway to
Brindisipatnam, of so large a sum as
would be involved in the adoption of
the standard gauge.

In this connection I visit H.S.'s and
Hon. Member's, present of my note on the
case of the joint of connection, on the S.C.R.
to the S. & B. Bengal Nagpur R.

H.S. The Governor
The Hon. Mr. D. S.
The Hon. Mr. J. S.

Mr. Spring has furnished figures in support of
his contention that Vizagapatnam with a good
harbour will be a superior port to Brindisipatnam.
He would seem that Mr. Spring has based his
calculations as to what lighters could do at
Vizag. on the assumption that the water is
always smooth there, as at Cochin, and
whereas, I believe this is by no means the
case. Again, he counts largely on the
reduction of European freight, but I
suppose much of the trade of Vizag. is
with other Indian Ports, and would not
show in this country. The Chamber
of Commerce might be asked to review Mr.
Spring's statement.

Assuming the accuracy of Mr. Spring's
views as to the future of Vizag. Harbour,
improved by the proposed scheme, and
assuming also that there is no early and
prosperous of that scheme being carried
out, I think we might say that

East Coast Railway
Mr. Turner's proposed branches.

1. - H.S. and Hon. Member will see that
beside the new letter, on the top of the bundle,
from the Govt of India, there are still two
undisposed of letters below. One, that from
the Collector of Vizag., has already had
orders passed on it, but has lain with those
orders has been delayed for want of the
figures which were in circulation. When replying
to the Govt of India letter was under reference,
H.S.'s orders in Council on the Collector of Vizag.'s
letter shall be carried out. The second
of the two undisposed of letters is from the
Madras Chamber of Commerce. I asked them
and H.S. asked me for further information.
I shall in the present note embody the
information asked for by H.S., and shall
suggest the form of a reply to the Govt. of
India.

2. - H.S. asks me for figures in support
of my traversing of the opinion of the
Madras Chamber of Commerce that the
proposed scheme is not a good one.

will be ~~submitted~~ ^{a handwritten note} ~~to the~~ ^{to} 8

begin by me to illustrate the probable saving
in sea freight. But I know that sea freight
from London to the Russian Manned boats
ports are from 7¹/₆ to 10¹/₆ per ton
above the freight to such a port as
Calcutta. Much of this excess of cost
is doubtless due to the fact that
whole ton ship load can very seldom be
landed at a coast port and be loaded &
filled again at the same port. But the
even in Calcutta this is not always
possible without long waiting. But the
chief cause of the excess of freight charged
in Liverpool & London for coast ports
where manned boats are used is that
the vessel is so much delayed. She can
get a discharge with Manned boats of
only 150 to 200 tons per day, whereas
in a port where cargo boats of 20 to 40
tons can be used she can get a discharge
only limited to what she can do with her
own derricks, two or even hold steam
work. A thousand tons a day is not too
much for a well served ship to put
out a take in with her own derricks.
5. - A Manned boat at Vizag or
Bombay carries about 2 1/2 tons per trip,
charges Rs 1/8 per trip, and makes about
greater than for 4. The is

a fair rate of interest can be
 earned charges of only 10 or 12 tons per day.
 should at a charge of about the same for the
 not be 6. - That the cost of landing and shipping
 of the large cargo boats is very much less than
 suffer that of masted boats is proved by the
 freedom here of these large boats at ports like
 at, Coconado and Falmouth where it is
 more possible to use them, though they cost the
 to the owner from \$2000 to \$4000 each.
 H. H. Wilson & Co. made a very large
 loss. Profit on the landing of the boat built
 the B. material at Coconado became the reason
 that gives to them of my predecessor there, he
 of F. B. Walker, was based on masted boats
 of notes, and they spent I think a whole
 their money in building a fine fleet of great
 when lighters. This same firm inform me, and
 by I believe them, that the saving is about
 for one third. That would, as compared
 the with the cost of landing and shipping
 of masted boats, be about 3 1/2 times
 the for the.

In the New York application to Govt.
 He dated 11th Feb. 97, for a concession to form a
 Co. Virgin Harbor Co. on H. H. the statement of
 of Virginian's guarantee of interest on 10 Mch.
 to be paid to the

John a possible 2 annu more. I
 take it that this extra 2 annu if
 denied, and it is I suppose certain to be
 denied, will be the means of Virgin. port
 then on British port then.

8. - We have now got to this that
 in favor of British there are
 freight by rail: $\frac{0-8-0}{\text{per ton}}$
 Saving in port dues $\frac{0-2-0}{0-10-0}$
 and against this there is a set
 off of cost of landing and
 shipping $\frac{0-3-0}{0-7-0}$
 Net in favor of British.

But in view of the great excess of
 European freight charges. 7 1/6 to 10 1/2
 per ton, in the case of a masted boat
 port, as compared with a regular harbor
 with proper facilities, it is impossible for
 me to believe otherwise than that this party
 shown annu will be made up for
 there or from their own improvement
 home freight.

9. - Moreover, I have just the case
 its boat. There has masted boat
 freight on the other side.

biggest grain cargo that can be easily
disposed along and handled. The improved harbor
at a low tide affords such facilities for other sorts of
6. - The cargo, and will do cheaper insurance against
loss between shore and ship that a much
better case might easily be made out
than I was tried to make out, in
connection of the Chamber of Commerce
activities.

10. - I now pass on to the part of
Indian letter. It deals with two
things, Mr. Turner's Vizianagaram-Puducherry-
Salma scheme, and his Vizianagaram-
Brindavan scheme. We have been
informed of the part of Indian letter in regard
the first of these, that Mr. Turner has
been told that they will receive fresh
application from him at the next conference.
H.S. and Mr. P. will recollect that
Mr. Turner received a 2:6" gauge locomotive.
It was held to have forfeited it because
when offered a 5:6" gauge locomotive in
lieu of it he asked such terms as it
was impossible to seriously entertain. That
letter to Puducherry has for the present. We
have said that we prefer a 5:6" gauge, and
he asked.

11. - Mr. Turner has already got a locomotive
for a 2:6" gauge line from Vizianagaram to
Brindavan. H.H. the Maharajah of Vizianagaram
has offered him a guarantee of interest for a
brief term of years on the cost of the narrow
gauge line. But Mr. Turner is most
persistent in trying to get a broad gauge
line done to Brindavan from Puducherry in the hope
of it eventually being a link from the
Central Province, so he has written to the
Govt. of India saying that if allowed to
make the broad on the broad gauge, and if
given Broad Line Terms he hopes to raise the
money without the aid of the Maharajah's guarantee.
12. - The Govt. of India have replied to him that
the line cannot be considered a Broad Line (and
it is just the reverse, it is an opposite line
running adjacent the great line,) and that
while his 2:6" locomotive remains undisturbed,
the question of whether the Vizianagaram Brindavan
line should be made broad gauge or not
has been referred to their Government for opinion.
13. - I am strongly opposed to it being made
a broad gauge. Though I don't think
that Mr. Turner has the least chance of
raising the money, even with the aid of
the Maharajah's guarantee for a few years.

1. begged grain came there...
2. make the broad gauge broad, and the
3. decision to make it will greatly militate
4. against the chance of the Vizag. harbour
5. scheme being floated. Should however
6. the Vizag. harbour scheme come off, the
7. Brindisi branch line will I judge become
8. at once a financial failure, and
9. scandal of the sort is very far reaching
10. in its effects and should be prevented at
11. all hazards. (When the financial failure of
12. the Bengal Central Railway in 1888-89, prevented
13. any money from coming forward for such lines for
14. long time, and the City still talks about the
15. Bengal Central failure, and Government had to
16. before continue their beyond guarantee)
17. the Govt. - The money to be spent on a broad gauge
18. line to Brindisi branch line would build the Vizag.
19. apply harbour. If Mr. Turner says it it may be
20. H.S. said that it is his own loss not his fault.
21. Mr. Turner but Government always gets the blame in the City
22. as he was for that sort of thing.
23. When of 15. - We ought I consider to go in strongly
24. line of as possible for one really good thing at
25. one single time, and to do all we can to promote Vizag.
26. either the harbour, and as a necessary sequence the railway
27. to the H.S. to the extent to drag trade away from

superior shipping business for
the Vizag. has become a different sort of
harbour from Brindisi, freight will not be
much lower than the Brindisi branch railway?
if built on the standard gauge, will be
ruined.
15. - Regarding all this, that is if I
have succeeded in inducing H.S. and Mr. Turner
to accept my view, as ^{might} ~~will~~ I
reply to the Govt. of India to the effect that
that "in view of the apparent probability of
the formation of a long gauge to Antwerp and
which the smaller boat harbour scheme at
Vizag, by private enterprise, it is considered
best to do nothing which might have the
effect, or which could be construed by
probable investors as being likely to have the
effect, of drawing off from Vizag. to a
less efficiently equipped port, the large
trade of the Pambolam, Bobbili, Salm
and the Agency Districts. That then
consideration has induced this Government
decide that it will be best not to subsidize
the line, and to grant to Mr. D. S. S. S.
and Mr. Turner for a 2'6" gauge railway
from Vizag. to Brindisi."
The

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H. S. The Governor.

D

This Note is interesting. It goes towards strengthening the case in favour of Vizagapatnam. The I. Thacker, from the last letter on the file that Col. Miller will oppose Vizagapatnam.

The Note should be put on record with other papers on the same subject.

A. S. H.

27.4.97

A. R.

When the Brimington Ry. comes back from H.S., put this up with it.

F/KS

28/4/97

28/4/97

Vizagapatnam Brimington Ry.

Just before leaving Madras I sent you Brimington a note on the subject of the probable handiapping effect of its long lease on the S. C. Ry. on the grounds which are put in to say to Brimington Ltd which, if the Vizag. Harbour was constructed, would probably find it say to that port, owing to the ^{long} sailing freight being balanced by cheaper port charges.

I have not the Note before me; it, with the case, is with you Brimington; so I am not sure that it is not being all to your figures. But I fear that I did not make sufficient allowance for the effect, in favour of Vizagapatnam, of the greatly cheapened handling charges which will be possible when cargo is handled directly from ^{Ry.} Vizagapatnam or from the Ry. goods sheds into boats. With the smallest boatmen and with it

When is it?

alongside, the sailing is hardly done,
owing to the use of cranes and other
facilities, will be very considerable.

I put up for your Excellency's perusal
some letters and documents which have
passed between me and Hall Wilson & Co
and the Manager S.C.B. I am of
course aware that any representation or
statement coming from Hall Wilson must
be taken with some reservation, as it is
then Mr Macneil who is the prime
mover in the Vizag Harbour scheme.

But I think that the evidence
of this and Mr Macneil's letters is,
when duly weighed, good enough to
show that I am correct in my
contention that, given a good harbour
at Vizag, the impending fate of
British India could be such as would not
warrant the expenditure on her account
of so much money for a brand

case with your Excellency, on top of the fact.

I attach herewith a letter which
Mr Fowler received yesterday from Mr
Fowler.

F.W.S.

21/9/17

21/9/17

4.

H. E. The Governor

I put up a letter just received which will I hope be considered by you Excellency in strengthening my argument in favour of the Vizing harbor.

You Excellency will see that when in 90-91 large quantities of material were being imported at Coonara, Vizing, and other coast ports, for the construction of the R.C.R., it was considered by the shipping brokers in England to be worth singeing, just as it is now, for ton if a ship could be discharged at the rate of 50 tons per day more speedily than at the minimum rate of 150 tons per day. Then if, instead of a discharge of 200 tons per day in Coonara

I am obliged to Mr. Birney for their additional information. I will only remark that the passage reached it seems to imply the existence of a breakwater, ^{and which} where the shipping could lie at all times and load & discharge. This would mean the larger & more costly scheme of Harbours improvement. The project may be placed under other in the same category.

638 29.11.97

May I further explain to your Excellency that the sole purpose of the proposed breakwater of the smaller scheme (6 to 10 lables) for the harbor, is to get rid of the bar, and thereby to permit of the use of cargo boats instead of small boats. There is no idea, or necessity, of ships lying behind this breakwater. If in the short breakwater ~~to be built~~ ^{to be built} ~~to form the 50 lable~~

overboard into cargo boats, as would be
easily possible with a harbour, and ^{with} ~~proper~~
jetty appliances in the backwaters,
the charterers would secure a reduction
in freight of at least a very fair
share of 2 shillings, or say Rs 1/8,
per ton. on an agreed freight of
say 15 shillings per ton; a very
important reduction.

There can I think be no doubt but
that once home shipping business had got
up to know that a discharge of 400 or 500
of tonnage could be safely calculated on,
the instead of being only contingent on
weather and a weather as in the case
referred to, a permanent drop in freight
of a very much higher figure than
2 shillings would ensue. In my
judgment the permanent drop would
be one third of present freight; because
if they could not calculate with a fair
degree of certainty, owners could make

purpose of securing a daily discharge of
400 or 500 tons instead of, as heretofore,
150 to 250 tons, — that is for all
purpose of in time securing lower freight,
all that is wanted is the smaller
breakwater, the sole duty of which
is the engineering duty of removing
the bar; by, 1st, concentrating the force
of the backwater, and 2^d, keeping
back the sand which is swept along
the coast by the prevailing currents.

I think that, if I have succeeded
in making this professional point
clear, your Excellency will view
the whole question from a new standpoint.

7/15

30/7/47

Therapeutic Spring for the treatment of the, Bismarck, N.Y.

$$7 \frac{1}{2} \times 6 \text{ m } = 45 \text{ m}^2$$

TELEGRAM

~~ORDINARY~~
DEFERRED

FROM

E. R.

To

Manager P.C.B.

D/125

Please wire ordinary massulab boat rates per ton approximately at coast ports for landing and shipping, and what tonnage per day can be ordinarily handled from or to ships at Vizagapatam and Brindigatam

FLS

9/4/97

Despatched
9.11.97

at Jhimlipatan.

Artd

Aug. 1907

LS

22

41 45

22 Feb 44

5

10

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Fig. 10.

100

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Journal compilation © 2006 Blackwell Publishing Ltd

Discussion

11

13-4-97

Telegraph Myster.

overboard into cargo boats, as would be
 easily possible with a harbor, and, ^{with} proper
 jetties appliances in the backwater,
 the charterers would secure a reduction
 in freight of at least a very fair
 share of 2 shillings, or say Rs 1/8,
 per ton. on an agreed freight of
 say 15 shillings per ton; a very
 important reduction.

There can I think be no doubt but
 that once home shipping business had got
 up to know that a discharge of 400 or 500
 of tons per day could be safely calculated on,
 the business of being only contingent on
 weather and on weather on in the case
 of a permanent drop in freight
 of a very much higher figure than
 2 shillings would ensue. In my
 judgment the permanent drop would
 be one third of present freight; because,
 if they could not calculate with a fair
 degree of certainty, owners could make

proposals of securing a daily discharge of
 400 or 500 tons instead of, as heretofore,
 150 to 250 tons, — that is for all
 purposes of a time securing lower freight,
 all that is wanted in the smaller
 backwaters, the sole duty of which
 is the engineering duty of removing
 the bar; by, 1st, concentrating the force
 of the backwater, and 2nd, keeping
 back the sand which is swept along
 the coast by the prevailing current.

I think that, if I have succeeded
 in making this professional point
 clear, your Excellency will view
 the whole question from a new standpoint.

F.H.S.

30/7/97

Recd
 30/7/97

Thank you for the answer to the letter of the 27th inst.

It is much to be desired that the business should be carried on in a more systematic manner.

Form No. 20.

TELEGRAM

DEFERRED

FROM

E. R.

TO

Manager E.C.R.

D/125

Please wire ordinary marmul boat rates per
 ton approximately at coast ports for landing
 and shipping, and what tonnage per day can be
 ordinarily handled from or to ships at Vizagapatnam
 and Brindipatnam

F.H.S.

24/7/97

Despatched
 9.10.97

many more much the same
 at Brindipatnam.

R.H.S.

Recd from L.N. Sent to L.N.

At Recd. Mts. by At Recd. Mts. by

DEAS 13-A-97

Form No. 20 T-9711.8-10.0000

Monthly
 Number.

C. R.

R. R.

for
 inspection

to the
 line
 of the
 ordinary

at the same

See Submarine
 in the same

7/11

There can
that once have
to know that a
time for my cold
instead of being
slow and on work
referred to, a few
of a very much
2 shillings would
judgment the few
be one third of present freight; because,
if they could only calculate with a fair
degree of certainty, owners could make
forward bargains, at the same or at

*Thank Mr. Spring for the above note. B-S, 11
will send a man that he knows has experience in
manipulating a small amount of money and find it

U.S. Pat. No. 3,727,271-10,000

March 2nd Shins by the above note, sent, it
will answer to you that he has not finished his
manuscript of a new book which would have

T-14.

INDIAN TELEGRAPH.

B

Monthly Loc. No. 1/1

Class. *Sp*

To *Mrs. Tropicana*

Station *41/3*

From *Coconada*

Station *Coconada*

~~URGENT~~

~~ORDINARY~~

DEFERRED

Words. *41/3*

Day. *10*

Hour. *13*

Minute. *54*

OFFICIAL INSTRUCTION.

Left

To (Person) *Hall Wilson*

Consulting Engineer - Geny

for Railways

From (Person) *Wdm H.*

Spent d 12.6 saving

Van Shipping Charges

about twenty per cent

in a port like

Vezayapattam quantity

Car go loaded but

clearly it would produce largely

be benefited only

by ships capacity of the boat

for work

Monthly Number. 1

C. R. G.

for

Vezayapattam

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TRIPPLICATE

10 APR 97

RECD. FROM		L. N.		SENT TO		L. N.	
At	Hrs.	Mts.	By	At	Hrs.	Mts.	By
Date _____ Postmaster. _____							

at Vezayapattam

Spent

Recd. from		L. N.		Sent to		L. N.	
At	Hrs.	Mts.	By	At	Hrs.	Mts.	By
13-4-97 Telegraph Master.							

overboard into cargo boats, as would be
 easily possible, it is
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 to charter
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 y 15 shute
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 There can
 once home
 know that
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 a very much
 shillings would
 against the for
 one third of present freight; because
 They sold and calculate with a fair
 give of certainty, even sold not
 and here: at the same or

RATES OF CHARGE FOR INLAND TELEGRAMS:

*The address (including name of Sender, and name and residence of Addressee)
is transmitted free.*

	First 8 words.	Each additional word.
Deferred Message	... 8 Annas	... 1 Anna.
Ordinary "	... 1 Rupee	... 2 Annas.
Urgent "	... 2 Rupees	... 4 Annas.

A group of 3, or less figures, is reckoned as one word.

No charge for delivery within a distance of 5 Miles.

Form No. 20.

TELEGRAM URGENT
ORDINARY
DEFERRED

FROM *Menden*
E. H.
On Exp. for Rs. TO *Cremens*
Halt Wilson &c.

132 D x How many shillings per ton improvement
or say thirty shilling freight might be
expected after first few years if, with aid
of boat harbours, ships could turn round as
fast as their own derricks could empty
and fill them, present ^{light} freight being largely
due to slow discharging from 3 masted boats

7/8
12/4/11

day's work much the same
at Jimlipatan.

Back from

LN.

Sent to _____

15

11 11

11

Ans. 67

111. 117. 118. 119. 120.

Telegraph Master.

13-4-97

one third of present freight; because,
they could not calculate with a fair
figure of certainty, owners could make
good business at the same or at

Code Class.		INDIAN TELEGRAPHS.		Monthly Number.	
To (Office)	From (Office)				
Words.	Day.	Hour.	Minute.	Official Instructions.	
To (Person)	From (Person)				
50° now when 12.5° dated 9th instant ordinary rate for massala boats at Vizagapatnam is one rupee eight annas per trip each boat carrying about two and half tons and makes four to five trips daily about till nooned to be on ordin- ary work much the same at Shimlipatan.					
64 Word Form.					
Annul. from		LN.	Sent to	LN.	
At	Res.	Its. by	At	Res.	Its. by
TELEGRAPHS 13-4-97					
Telegram Master.					

1662
13/4/97

bound into case 1.

HALL WILSON & CO
TELEGRAPHIC ADDRESS,
"HALL COCONADA"
AGENTS FOR
LLOYDS
BRITISH INDIA STEAM NAV. CO LTD

C
Coconada, 12th April 1897.

F.J.E. Spring Esq., C.I.E.
Consulting Engineer for Railways,
M a d r a s .

Sir,

We have the honor to acknowledge receipt of your telegram
of 9th instant

"D 126 please wire what saving may be expected over
"masullah boat landing and shipping charges per ton
"after a port has been made fit for large cargo ---
"barges like yours at Cocanada also what improvement
"in daily tonnage handled."

to which we replied on 10th idem as follows:-

"Your D 126 saving in shipping charges about thirty
"per cent in a port like Vizagapatam quantity cargo
"handled daily would practically be limited only by
"ships capacity for work".

Confirming the above messages we beg leave to place before you
the grounds on which our reply is based. The rate of masulla
boathire at the neighbouring ports of Vizagapatam and Bimlipatam,
where masulla boats are almost exclusively used, is Rs 1/8 for --
35 bags which works out at nearly Rs 4/8 per 100 bags as against
Rs 3/- per 100 bags which we have taken as the average rate at

Lying

Cocanada where shipment is effected in large lighters carrying from 200 to 800 bags. We may say however that we believe Rs 3/- is considerably above the average for although during times of exceptional pressure the rate has been known to touch Rs 4/- -- and Rs 4/8 yet as a rule there is no difficulty in getting ---- cargo taken alongside at Rs 2/8 per cent and even Rs 2/-.

If we may venture to assume that your inquiry is not unconnected with the proposed harbour works at Vizagapatam we are very confident that the saving at that port which will be -- effected in the shipping charges by the creation of a boat --- harbour would be nearer 50 than 30 per cent. Our conviction -- rests on the certainty that the large barges which it would be possible to utilize could and would make at least two trips a day against one trip, which is the maximum possibility at Coca- nada. The distance from the harbour to the shipping being so small two or three trips would be an ordinary days work for the largest lighters and the first effect of the increased earning power which this would represent would be a fall in the rate to probably Rs 2/- per 100 bags. It must also be borne in mind -- that there would be a great saving to the shipper in the matter of bags returned damaged. We think therefore that 50 per cent may very safely be estimated as a saving in shipping charges.

As regards landing charges it is less easy to arrive at a reliable conclusion as to the saving that will be effected but there can be no doubt that the facilities which would be -- afforded by the use of large craft would make it possible to land ~~the~~ cargo at rates very much lower than now obtain.

Lying

INDIAN TELEGRAPH

Class: *1* To: *Calcutta* Station: *Calcutta*

Words: *11/3* Day: *13* Hour: *10* Minute: *50* AM/PM: *AM*

Official Instruction: *11/3*

3th April 1897.

To (Person): *The Hon. Mr. Hall Wilson*
 To (Office): *Engineer for Railways Co.*

1
 2 *Yours 132 homeward*
 3 *I have at length formed*
 4 *that a valuable storage*
 5 *in port construction*
 6 *of Raipur and other*
 7 *lines with terminal*
 8 *harbour and landing*
 9 *facilities would*
 10 *attract exports to*
 11 *Vizagapatam as*
 12 *convenient distributing*
 13 *center and ships*
 14 *thus available*

RECD. FROM: *L. N.* SENT TO: *At* *Hrs.* *Mts.*

At: *Hrs.* *Mts.* By: *97*



Date

pt of your telegram

improvement on say

e expected after

at harbour ships

own derricks

high freights

ge given by

terms:-

governed by

action of Raipur

rbour and landing

to Vizagapatam

- "as convenient distributing centre and ships thus
- "available would accept low homeward freight to
- "avoid change of port. Light expenses and quick
- "despatch should reduce freights to level of Bombay
- "rates."

H. M. Wilson

RATES OF CHARGE FOR INLAND TELEGRAMS.

The address (including name of sender, and name and residence of Addressee) is transmitted free.

	First 8 words.	Each additional word.	
Deferred Message	... 8 Annas	... 1 Anna.	A group of 5, or less figures, is reckoned as one word
Ordinary "	... 1 Rupee	... 2 Annas.	
Urgent "	... 2 Rupees	4 Annas.	

No charge for delivery within a distance of 5 Miles.

1689
14/4/97

HAL WILSON & CO
TELEGRAPHIC ADDRESS,
"HALL COCONADA".
AGENTS FOR
LLOYDS
BRITISH INDIA STEAM NAV. CO. LTD

Coconada. 13th April 1897.

To

The Consulting Engineer for Railways,
M a d r a s .

Sir,

We have the honor to acknowledge receipt of your telegram of 12th instant as follows:-

"132D how many shillings per ton improvement on say
"thirty shillings freights might be expected after
"first few years if with aid of boat harbour ships
"could turn round as fast as their own derricks
"could empty and fill them present high freights
"being largely due to slow discharge given by
"massulah boats."

to which we have replied in the following terms:-

"Your 132 homeward freight largely governed by
"available tonnage in port. Construction of Raipur
"and feeder lines with terminal harbour and landing
"facilities would attract imports to Vizagapatam
"as convenient distributing centre and ships thus
"available would accept low homeward freight to
"avoid change of port. Light expenses and quick
"despatch should reduce freights to level of Bombay
"rates."

H. Wilson

Confirming the above telegrams we think there is little that we need add to our message. We understand that the construction of the Raipur line is likely to be sanctioned and put in hand at no very distant date and on this, the Parvatipore line and -- other feeders, which will from time to time be brought into ---- existence, we largely depend, in conjunction with the harbour, for the future developement of Vizagapatam. The facilities which Vizagapatam will afford for cheap import and distribution of -- goods will unquestionably attract the attention of merchants : and ship owners will not be likely to press for high outward --- freights to a cheap port, where there are no pilotage dues and no risks in navigation, and where return freight is a certainty. ---- Freights from various causes are subject to such fluctuations that it is impossible to make any very reliable forecast : but we think that in a very few years time Vizagapatam and Bombay rates will be on about a level.

A point which we anticipate will further, tell in -- ²⁴ favor of Vizagapatam is that steamers will probably be able to proceed direct from Aden, without coaling at Colombo. Vizaga-- patam would become a coaling port and for the homeward voyage vessels would there take sufficient to carry them back to Aden, or Port Said. This would reduce expense and save time, two ---- considerations which will have their due weight with ship ----- owners.

We have the honor to be,

Sir,

Your most obedient servants,

Herewith

Boconada 12th April 1897

My dear Spring /

Your official telegram of 9th inst. was passed on to me at Waltair, and was replied to under my instructions. I am not addressing you officially elsewhere, but I may here say that I am confident my forecast of what will happen at Vizagapatam when the Harbour sounds the knell of the maulaboot is not at all overdrawn. I am aware we have the whole of the vested interests of Madras arrayed against us now, and that Calcutta will also go solid against us as well as soon as, or before, she is linked up with the E. C. Railway. It is going to be the old story of Narnthi and Bombay once again: only in this case the Madras firms have the additional spur of the jealousy with which they are good enough to honour us. I shall want to state our case, point by point, as occasions arise as fairly and as conclusively as possible: and in my reply to your inquiry I have followed this rule, neither exaggerating nor underestimating what I believe to be amongst the benefits that will accrue to Vizagapatam and to trade by the creation of a Harbour.

I saw Brewster on Saturday: he is very anxious to see you and desired me to say so when writing. I, and I think all of us, will warmly welcome you back.

Yours sincerely

Edifford



1877 Aug 15

Dear Sir,
I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the matter of the
land in the name of the late John A. Smith, deceased, and in reply to inform you that the same has been
forwarded to the proper authorities for their consideration. I am, Sir, very respectfully,
Yours, very truly,
J. H. Smith

Wadsworth
18/4/7

My dear Spring

Your wire about
rates of boat-hire at
these ports. I have
sent you the rates
given by the Port-Office
but - I do not - think
you can rely on
altogether as they
fluctuate very

recd. on 14/4/97.

14/4/97

2nd day.
iii
Be
Remee
3rd from

at both Ports - Just -
know they are up
because there is
competition, both
Maffra & Mangalore
are being despatched.
I take it - you are
writing a note about -
proposed boat -
- there is great.

opposition to it - I have
from both Officials
and merchants - I think
in both cases there
opposition is due to
jealousy, the idea
being that merchants
have got a concession
that has money in
it -

Yours truly
A. K. S. Srinivasan

Form No. 20.

TELEGRAM ^{URGENT}
~~ORDINARY~~
DEFERRED

FROM

E. R.

To Watlin
Manager S.C.R.

140D+ Please send me for perusal and return the
early document about landing stores at
Vizagapatam showing a reduction in
freight charges from England if more
than a certain tonnage landed daily

Despd. on 14/4/97.

7/5
17/4/97

PAID
p.m.

L.N.
By

Postmaster.

iii
the
from

29/4/97

now they are
became the

competition.

Happy to be

being dry

take 2-300

ting a whole

hoped

Wm. - Thompson

Charter party
dated Nov 14/95.
200
average rate
working day.
accepted.
has no
of the cargo
the average
working day.
accepted, in
6 cases the
be six from
Postmaster.

both Ports
now they
came to
ramps
for
den
take
thing
ramps.

In your reply please quote the
numb. and date of this letter.

Form No. Mgr. 19.

No. 3205
190

From

THE MANAGER,
East Coast Railway.

To

THE CONSULTING ENGINEER for RAILWAYS,
MADRAS.

Dated Waltair, the 21st April 1897.

Sir,

With reference to your telegram No. 140 D., dated 14th
April 1897, I have the honor to forward herewith an extract from
the Charter Party of Steamers which come out from England