

(1) Number of pages _____

(2) Date of repair _____

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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 3712

Press

~~Mis.~~

161-162

Dated 7-12-1865.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
7th December 1865.*

No. 161. Read the following Endorsement of the Consulting Engineer for Railways, dated Madras, 23rd November 1865, No. 581 :—

Read the following letter from the Agent and Manager of the Madras Railway Company; to the Consulting Engineer for Railways, dated Madras, 11th November 1865, No. 809.

1. In accordance with the request contained in Major Shaw Stewart's letter of the 28th ultimo, No. 756, I have the honor to submit copies of the replies which I have received from the Chief Engineer, Locomotive Superintendent, and Traffic Manager, in which they state their views, with regard to the extent to which Tramways can be considered effective substitutes for, or auxiliaries to, ordinary Railways.

2. My own views coincide very much with those expressed by Mr. Smart, and the fatal mistake, as I consider it to have been, which the Tramway Company made in adopting a different gauge, between Arconum and Conjeveram, to that of the Railway, has been exemplified in their Agent's recent negotiation with the Governor of Pondicherry, in which it was made a "*sine qua non*," that the proposed extension of the Tramway from Conjeveram to that sea port should be constructed of the recognized Indian gauge. This arrangement, if carried out, will necessitate the re-construction of the line from Arconum to Conjeveram.

From the Chief Engineer, Madras Railway Company; to the Agent and Manager, Madras Railway Company, dated Madras, 7th November 1865, No. 494.

1. Referring to the Consulting Engineer's letter No. 756 of 28th ultimo. As the Indian Tramway Company do not publish any returns of traffic on the Conjeveram line, I have no reliable information on which to form an opinion of its success as a commercial undertaking. Judging from my own observation of the traffic, and considering the staff that has of necessity to be maintained for this short line, I am disposed to think that it does not pay its working expenses.

2. The traffic is only large at a particular season, when the annual feasts take place. To enable the Company to carry all the passengers that then present themselves, it would be necessary to keep about ten times the rolling stock required during the rest of the year. If bullocks travelling, say at five miles an hour, were employed, this difficulty might be overcome, because carriages of very simple and cheap construction might be provided for emergencies of the kind, and any amount of bullock power could be obtained, but where locomotives are used, it becomes an expensive matter to keep them in stock, and to keep skilled Mechanics to work them, and where a speed of fifteen to twenty miles an hour is attained, it would not be safe to use carriages of the simple construction I have in view.

3. As regards the general question "Whether a Tramway can be considered a cheap and efficient substitute for, or auxiliary to, an ordinary Railway." Before I state my views, it will be well to explain what I understand by an ordinary Railway, and by a Tramway. By an ordinary Railway, I mean a structure of the character of the Madras Railway, worked by engine power. By a Tramway, I understand a means of communication formed by laying either trams or light rails on an ordinary road, or on works specially prepared to receive them, and worked by animal power. The Conjeveram line answers to neither description; it is a light Railway. All means of communication must be made in special reference to the traffic they are intended to accommodate. Where the traffic of a District is such as to warrant the construction of an ordinary Railway, I need hardly say that a Tramway can never be an efficient substitute for it: firstly, because the speed on which the success of Railways largely depends, and on which the public insist cannot be attained; and secondly, because no Tramway could carry the traffic of an ordinary Railway, with-

*Proceedings of the Madras Government, Public Works Department,
7th December 1865.*

out multiplying its lines to such an extent as would increase its cost beyond that of a Railway. As auxiliaries to Railways, there can be no doubt that Tramways, in common with roads of all other descriptions, are more or less valuable, whether they will ever prove remunerative to the Projectors, must depend upon the circumstances of each case. A Tramway made to meet a constant and steady passenger traffic, such for example as exists between Madras and the Mount, would undoubtedly pay if it were worked as an Omnibus stopping where required to pick up and set down passengers. A Tramway from Coimbatore station, passing through Coimbatore to Colar at the foot of the Neilgherries worked on the same principle, would probably be successful, because in addition to 1st Class travellers, a large passenger traffic is induced by the necessity all people going to the markets at Coonoor and Ootacamund are under of travelling with their produce for the purpose of taking it up the hill and disposing of it. On the two cases I have instanced, the traffic is large and constant. A short Tramway, such as that which some time since was projected between Arcot and the Railway station, entering into competition with a good common road, has one great disadvantage to contend with. It cannot, like a bandy, be taken to every man's door to collect goods. Those who use it must first load their goods on a common cart, and take them to the Tramway station to be loaded on trucks, and at the end of a few miles re-loaded into the Railway Company's waggons. As a general rule, I think it would be found that the owners of goods would prefer dealing directly with the Railway. In the case of goods coming from a distance, and not stored at Arcot at all, there can be no question that the bandymen would prefer coming a few miles further to the Railway station, where they would have the best chance of getting return loads. I have mentioned these particular instances, because I don't think it possible to say, generally, whether Tramways are likely to be successful or not.

4. The allusion to the Conjeveram line by the Government of Bombay leads me to think that the information sought for is rather in reference to light Railways, than to Tramways, and I venture therefore to offer a few remarks on the subject.

5. The term light Railway is used to denote a structure having all the characteristics of an ordinary Railway, and worked by engine power, but with a permanent way considerably lighter than that which is in use on ordinary lines. The rails may vary from 25 to 60 lbs. per yard. When they approach the latter dimensions, the light Railway merges into an ordinary Railway. The economy of constructing light Railways is very doubtful. It is generally admitted, that the gauge of all Indian lines should be uniform. The Indian Tramway Company have already discovered their error in adopting a narrow gauge, and are prepared, I understand, in future undertakings to use the Indian gauge of 5'-6" although this step will render their present rolling stock useless. With a wider gauge they must introduce heavier rolling stock, and heavier rolling stock will necessitate a more substantial permanent way. The difference in the cost of masonry works, capable of bearing the traffic of an ordinary Railway and of a light Railway, is practically inappreciable. The gauge being the same in both, the cuttings, embankments, and ballast must be the same. The fencing, stations, signals, and all other appointments must be the same, and the same wages must be paid to Officers and servants.

6. The only item, therefore, on which a reduction can be effected, is permanent way, and that only to the extent of £1,000 per mile. (The permanent way of the Madras Railway costs in round numbers £3,000 per mile, that of the Indian Tramway Company £2,000), and if the permanent way be less substantial than that of an ordinary Railway, the cost of maintenance and renewals will be increased in a corresponding degree. The weight of the rolling stock must be diminished, and with it the carrying capacity of the line.

7. If the promoters of light Railways would fairly take these facts into consideration, we should hear no more of such projects.

(True Copy.)

(Signed) R. B. ELWIN,
Agent and Manager.

*Proceedings of the Madras Government, Public Works Department,
7th December 1865.*

From the Traffic Manager, Madras Railway Company; to the Agent and Manager, Madras Railway Company, dated Madras, 8th November 1865, No. 471.

1. With reference to the Consulting Engineer's letter No. 756 of the 28th ultimo, forwarding copy of a letter from the Secretary to the Government of Bombay to the Madras Government, inquiring whether the Tramway between Arconum and Conjeveram "can be considered, and to what extent, a cheap and effective substitute for, or auxiliary to, ordinary Railways," I beg to say that, in regard to the cost of the line, I have no means of forming an opinion.

2. The Tramway between Arconum and Conjeveram as at present constructed (gauge 3'-9") though a very indifferent substitute for an ordinary Railway, is unquestionably effective as an auxiliary, in comparison with a common road; but its usefulness is considerably diminished by the difference of gauge, and the necessity to break bulk, and I think it will be found, in working a heavy goods traffic, that the cost of haulage will be little, if at all, less than that of an ordinary Railway; while the disadvantages, inseparable from a break of gauge, will be always felt, and must prejudice traffic.

3. There can be little doubt that Tramways as feeders to Trunk lines, to be really efficient, should be constructed on the Trunk line gauge, to admit of a partial interchange of rolling stock in the working of "Foreign" goods traffic; for, although the use of so heavy a description of stock as that used on the Trunk lines may not be necessary for the "local" traffic on Tramways, yet I am clearly of opinion that Tramways should be in a position to haul over their own lines, at low speeds, the heavy goods stock of the Trunk lines.

(True Copy.)

(Signed) R. B. ELWIN,
Agent and Manager.

From the Locomotive Superintendent, Madras Railway Company; to the Agent and Manager, Madras Railway Company, dated Perambore Works, 10th November 1865, No. 226.

1. Your No. 209 of this date.

2. I am sorry to say that I have no data whereon to form any opinion regarding the efficiency and economy of Tramways as substitutes or auxiliaries to ordinary Railways. I did not earlier reply to your communication of the 30th ultimo, as I intended to have endeavoured to procure some information on the subject.

(True Copy.)

(Signed) R. B. ELWIN,
Agent and Manager.

1. I have the honor to submit the above letters to Government, with reference to G. O. No. 3,217, dated 26th October 1865.

2. No returns of traffic on the Tramway from Arconum to Conjeveram have been rendered to this Office, and I am therefore unable to offer an opinion of its effectiveness, either as an independent line or an auxiliary to the Madras Railway.

3. There can be no doubt that the efficacy of the Tramway must be seriously impeded by the break of gauge, at least as regards goods traffic; and it may be questioned, whether any material advantage would be gained by rectifying this inconvenience, unless the strength of the permanent way and rolling stock were also assimilated to those of the Trunk line.

4. If the Tramway carriages were to be of a lighter description than those on the latter, then, when used for through traffic, there would be danger of their being jolted to pieces, and on the other hand the transfer of fully loaded vehicles and

engines from the main line to the Tramway would render light rails on the latter objectionable.

5. There is a large passenger traffic between Arconum and Conjeveram during certain feasts; and, as the Chief Engineer of the Madras Railway remarks, the Tramway Company in order to meet it, must keep up a much larger amount of rolling stock than is required for ordinary occasions, whereas if the gauge and permanent way had been uniform the rolling stock for any exceptionally high traffic might have been borrowed from the Madras Railway.

6. Something, however, is to be said in favor of a light Railway like that from Arconum to Conjeveram. If for example such a line were to be carried through a succession of populous towns, which would be capable of furnishing a large and steady passenger traffic, it is quite possible that there should be a profitable return, even if goods traffic were entirely unprovided for.

7. On the Madras Railway the 3rd Class passenger traffic is at present the only one that is really remunerative, and as it can be worked at less proportional cost than the goods traffic, the Railway will profit more by an extension of the former than by a similar extension of the latter, supposing certain numbers of the one to be set against a certain weight of the other. The cost of the Conjeveram and Arconum line has, I believe, amounted to about £4,000 a mile, whilst that of the Madras Railway has been nearly £12,000, but as much of the latter passes through hilly and otherwise unfavorable ground, this rate is very much higher than it would have been in a level country. Perhaps there will be no great error in assuming that, under similar circumstances, the light Railway would cost about half as much as the other. The saving in prime cost would certainly be no slight consideration, while the working expenses would also be less on the light Railway than on the other, and if it were considered that the interest of the public, represented mainly by 3rd Class passengers, were sufficiently served by carrying them at a speed of ten or twelve miles an hour, I see no reason why a light Railway should not be a highly profitable undertaking.

8. For instance, I think it probable that a light Railway, on the Arconum and Conjeveram pattern, from Madras to the southward, to run nearly parallel to the coast, and to pass through all the large towns on the way, and another along the low country on the western coast, would pay well from passenger traffic alone, especially on the favorable terms offered to Tramway Companies by Government. Of course goods would also be carried, but the fact of the Railway being parallel to, and not far removed from the sea, which would afford the best mode of transport for produce of various kinds, would be no argument against such a line, if the calculations of returns were based on passenger traffic only, and proved satisfactory.

9. The light Railway from Arconum to Conjeveram is only eighteen miles long, and the inconvenience of the break of gauge would be felt less, in proportion, as the length of the line should be increased. What must now be a serious extra charge, for the transfer and separate consignment of goods to and from the Madras Railway, would become insignificant, if the light Railway were extended to a length of 50, 60 or 100 miles, while if, instead of extending the existing line,

an entirely new line were to be opened from Madras itself, the inconvenience arising from break of gauge would be almost entirely neutralized.

10. There seem to be no signs of any Companies coming forward to open out new lines of Railway in this country on the scale of the Trunk lines. The latter are constructed much on the English pattern, and are necessarily very expensive both as regards prime cost and in working. It can neither be necessary or desirable, that all lines which may hereafter be required, should conform to this standard. There must be many localities where the transport of Troops, or of 1st Class passengers, need not be taken into consideration, and where a speed of ten or twelve miles an hour would satisfy both Government and the public; and in such cases where the traffic would principally be formed of the middle and lower classes of Natives, who now for the most part travel 3rd Class, the expenditure on "Stations" might be reduced to a very low figure, and in short all expenses would be much less than on the Trunk lines, whether as regards the Construction or Locomotive Departments, or Establishments.

(Signed) J. C. ANDERSON, Lieut.-Colonel, R. E.,
Consulting Engineer for Railways.

No. 162.

ORDER THEREON, 7th December 1865, No. 3,712.

RAILWAY, No. 14.

Ordered that the foregoing papers be communicated to the Government of Bombay.

(Here enter No. 3,713, dated 7th December 1865.)

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

PUBLIC WORKS DEPARTMENT,
FORT SAINT GEORGE,
7th December 1865.

No. 3,713.

No. 163.

To

THE ACTING SECRETARY TO THE GOVERNMENT OF BOMBAY,
PUBLIC WORKS DEPARTMENT.

SIR,

RAILWAY, No. 15.

In accordance with the request contained in your letter No. 20 R—2218N, dated 13th October 1865, I am directed by His Excellency the Governor in Council to forward, for the information of the Government of Bombay, a copy of the Proceedings marginally noted, containing the opinions of the Consulting Engineer for Railways and of the Madras Railway authorities on the question as to whether the Tramway from Arconum to Conjeveram and other light Railways "can be considered, and to what extent, cheap and effective substitutes for, or auxiliary to, ordinary Railways."

Procs. of Madras Government, dated 7th December 1865, No. 3,712.

I have the honor to be,
Sir,

Your most obedient servant,

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

1865 Dated
From Govt for Decision
No. 4709
The Consulting Engineer
for Railways.

To
The Secretary to Govt
P. W. Dept
Fort St. George

Dated 23rd }
Recd 28 } Nov 4/65.

B4 H. 581.

Observations on
letters from the Agents
& Managers of other Offices
of the M. R. Compt, with
reference to the extent
to which Tramways can
be considered effective
substitutes for or auxiliaries
to ordinary Railways.

No. 3712-3713-7th Decr/65

No. 161.

C. 121 Decr 1865 D. 1703

No 226.

Madras Railway
Locomotive Superintendent's Office
Perambore works.
10th November 1865.

Dear Sir,

Yours No 209 of this date.

I am sorry to say that I have no data whereon to form any opinion regarding the efficiency and economy of Tramways as substitutes or auxiliaries to ordinary Railways. I did not earlier reply to your communication of the 30th ultimo, as I intended to have endeavoured to procure some information on the subject.

Yours &c
Signed W. D. Wright
Locomotive Superintendent

The Agent and Manager.

(True copy)

W. J. Chute
Agent and Manager.

W.D.

p 494

Massey Hastings Company
Chief Engineer's Office
Madras, 7th November 1865.

Dear Sir,

Referring to the Consulting Engineer's
letter p. 706 of 28th ultimo. As the Indian
Hawmway Company do not publish any returns of
Traffic on the Conjeevaram line, I have no reliable
information on which to form an opinion of its
Success as a Commercial undertaking. Judging from
my own observation of the Traffic and considering
the Staff that has of necessity to be maintained
for this short line I am disposed to think that
it does not pay its working expenses.

The Traffic is only large at a
particular season, when the Annual fairs take
place. To enable the Company to carry all the
passengers that then present themselves, it would
be necessary to keep about ten times the Rolling
Stock required during the rest of the year.
If bullocks, travelling say at 5 miles an hour
were employed, this difficulty might be overcome,
because Carriages of very simple and cheap
Construction might be provided for emergencies of
the kind; and any amount of bullocks-power
could be obtained; but where Locomotives are
used, it becomes an expensive matter to keep
them in Stock; and to keep skilled Mechanics
to work them, and where a Speed of 15 to 20
miles an hour is attained, it would not be safe
to use Carriages of the simple Construction I
have in view.

Yours
A. J.

22/10/65

As regards the general question "whether
a Tramway can be considered a cheap and
efficient substitute for or auxiliary to an ordinary
Railway". Before I state my views, it will
be well to explain what I understand by an
ordinary Railway, and by a Tramway. By an
ordinary Railway, I mean, a structure of the
character of the Malabar Railway, worked by
Engine power. By a Tramway, I understand
a means of Communication formed by laying either
rails or light rails on an ordinary road, or on
works specially prepared to receive them, and
worked by Animal power. The Corporation
line answers to neither description, it is a light
Railway. All means of Communication must be
made in special reference to the traffic they
are intended to accommodate. When the traffic
of a district is such as to demand the construction
of an ordinary Railway, I need hardly say
that a Tramway can never be an efficient
substitute for it, firstly, because the speed
on which the success of Railways largely depends,
and on which the public must never be allowed
and secondly, because no Tramway could carry
the traffic of an ordinary Railway, without
multiplying its lines to such an extent as would
increase its cost, beyond that of a Railway.
As auxiliaries to Railways, there can be no doubt
that Tramways in common with roads of all
other descriptions, are more or less valuable,
whether they will ever prove remunerative
to the proprietors, must depend upon the
circumstances of each case. A Tramway made
to meet a constant and steady passenger traffic,
such

such for example as exists between Madras and
the Market, would undoubtedly pay if it were
worked as an omnibus stopping where required
to pick up and set down passengers. A
Tramway from Government Station, passing through
Government to the foot of the hill, would probably
be worked on the same principle. It would probably
be successful, because in addition to the
traffic, a large passenger traffic is induced by
the necessity of people going to the Market at
Government and Government, and the purpose of taking it
with them produce for the purpose of taking it
up the hill and disposing of it. On the two
roads I have mentioned, the traffic is large
and constant. A short Tramway such as that,
which Government Station entering into
Government and the Railway Station, has no
competition with a good Common road. It cannot
greatly disadvantage the Common road. It cannot
take a body, he takes to every man's door to
collect goods. Those who use it must first
load their goods on a Common Cart, and take
them to the Tramway Station to be loaded on
trucks, and at the end of a few miles be taken
into the Railway for transport. As a
general rule, I think it would be found, that
the owner of goods would prefer dealing directly
with the Railway. In the case of goods
coming from a distance, and not stored at Government
at all, there can be no question that the carting
would prefer coming a few miles further to the
Railway Station, where they would have the
best chance of getting better loads. I have
mentioned these particular instances, because I

I don't think it possible to say generally, whether
Gammays are likely to be successful or not.

The allusion to the Conjunction line
by the Government of Bombay, leads me to think
that the information sought for, is rather in
reference to light Railways, than to Gammays, and
I venture therefore to offer a few remarks
on the subject.

The term light Railway is used
to denote a structure having all the characteristics
of an ordinary Railway, and worked by Engine
power, but with a permanent way considerably
lighter than that which is in use on ordinary
lines. The rails may vary from 25 to 60 lbs
per yard. When they approach the latter
dimensions, the light Railway merges into an
ordinary Railway. The economy of constructing
light Railways is very doubtful. It is generally
admitted, that the gauge of all Indian lines
should be uniform. The Indian Railway Company
have already discovered their error in adopting
a narrow gauge, and are prepared, I understand,
in future undertakings to use the Indian gauge
of 5' 6", although this step will render their
present Rolling Stock useless. With a wider
gauge they must introduce heavier Rolling Stock,
and heavier Rolling Stock will necessitate a more
substantial permanent way. The difference in
the cost of masonry works, capable of bearing
the traffic of an ordinary Railway, and of a
light Railway is practically inappreciable. The
gauge being the same in both, the cuttings,
embankments and Ballast, must be the same.
The Engines, Stations, Signals, and all

other appointments must be the same, and the
same wages must be paid to officers and
servants.

The only item therefore, on which
a reduction can be effected, is permanent way,
and that only to the extent of £1000 per mile
(The Permanent Way of the Madras Railway costs
in round numbers £3000 per mile, that of the
Indian Railway Company £2000), and if the
Permanent Way be less substantial than that of
an ordinary Railway, the cost of maintenance and
renewals will be increased in a corresponding
degree. The weight of the Rolling Stock must
be diminished, and with it the carrying
capacity of the line.

If the promoters of light Railways
would fairly take these facts into consideration,
we should hear no more of such projects.

Yours faithfully
Signed W. J. Smart
Chief Engineer

To the Agent & Manager

/True Copy/

Mr. B. B. B.

Agent and Manager

N. 471.

Madras Railway
Traffic Manager's Office,
Madras, 8th November 1865.

Dear Sir,

With reference to the Consulting Engineer's letter N. 756 of the 21st ultimo, forwarding copy of a letter from the Secretary to the Government of Bombay to the Madras Government, enquiring whether the Tramway between "Koonam and Conjeram" can be considered, "and to what extent, a cheap and effective substitute for, or auxiliary to, Ordinary Railways"; I beg to say that, in regard to the cost of the Line, I have no means of forming an opinion.

The Tramway between Koonam and Conjeram as at present constructed (Gauge 3' 6"), though a very indifferent substitute for an ordinary Railway, is unquestionably effective as an Auxiliary, in comparison with a Common Road; but its usefulness is considerably diminished by the difference of gauge, and the necessity to break Bulk, and I think it will be found, in working a heavy Goods Traffic, that the cost of haulage will be little, if at all, less than that of an ordinary Railway, while the disadvantages - inseparable from a break of gauge - will be always felt, and must prejudice Traffic.

There can be little doubt that Tramways as feeders to Trunk Lines - to be really efficient, should be constructed on the Trunk Line Gauge, to admit of a partial interchange of Rolling Stock in the working of "foreign" Goods Traffic; for, although the use of so heavy

92/bel/1116

No. 809.

MADRAS RAILWAY COMPANY.

AGENT AND MANAGERS OFFICE.

Madras, ~~November 11~~ ¹² 1865.

From

R. P. Oliver Esq;

To

Agent and Manager of the
Madras Railway Company

Mr. C. C. Anderson R. E.

Consulting Engineer for Railways.

Sir,

In accordance with the request contained in Major Stewart's letter of the 20th ult., No. 756, I have the honor to submit copies of the replies, which have received from the Chief Engineer, Executive Superintendent, and Traffic Manager, in which they state their views, and with regard to the extent to which Tramways can be considered effective substitutes for, or auxiliaries to, ordinary Railways.

2. My own views coincide very much with those expressed by Mr. Smart, and the fatal mistake, as I consider it to have been, which the Tramway Company made in adopting a different gauge, between Arcemann and Coimbatore, to that of the Railway, has been exemplified in their Agent's recent negotiations with the Government of Pondicherry, in which it was made a 'sine qua non'; that the proposed extension of the Tramway from Coimbatore to that city, should be constructed of the recognised Indian Gauge. This arrangement, if carried out, will necessitate the reconstruction of the line, from Arcemann to Coimbatore.

I have the honor to be,
Sir,

Yours most obediently,
R. P. Oliver
Agent and Manager

a description of Stock as that used on the Trunk Lines may not be necessary for the "local" Traffic on Tramways, yet I am clearly of opinion that Tramways should be in a position to haul over their own Lines, at low speeds, the heavy Goods Stock of the Trunk Lines.

Yours faithfully,
R. P. Oliver
Traffic Manager.

To

The Agent and Manager

New Copy

Mr. R. P. Oliver
Agent and Manager.

Exhibited

Proceedings of the Madras Government.
 Under date the 20th Nov/65.
 Read the following

From the Long Eng^r for
 Railways -

Observations on letters from
 the Agent and Manager and other
 Officers of the Madras Railway
 Co. with reference to the extent to
 which Lamways can be con-
 sidered effective substitutes
 for, or auxiliaries to ordinary
 Railways -

N. E. 23rd Nov/65 No. 581.

Ordered that
 the foregoing paper
 be commd to the
 Govt. of Bombay.

20th Nov/65
 To the Secretary to the
 Govt. of Bombay.
 P. W. Dept.

Sir,
 In accordance
 with the request
 contained in
 your letter No 20 R
 22/8 M

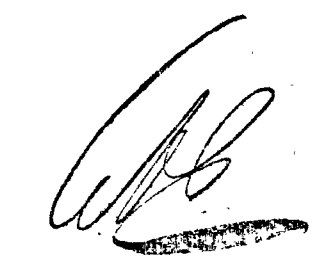
117059
 MADRAS RAILWAY.
 From The Agent and Manager.
 To The Consulting Engineer
 for Railways.
 Date 20th Nov/65
 Recd. 21-11-65
 No. 819.
 Referring to the order and
 of the Ch. Engrs, and
 with reference to the
 extent to which the ordinary
 as has been between
 Government Engineers, and
 to the Madras Railway Co.
 Officers, and the
 difficulty to ordinary
 Railways -

dated 13th October
 1865, I am directed
 by His Excellency
 the Governor in
 Council to forward
 for the information
 of the Govt. of Bom-
 bay a copy of
 the Proceedings
 marginally noted,
 containing the
 opinions of the Consulting
 Engineer in Rail-
 ways and of the
 Madras Railway
 Authorities on the
 question as to
 whether the Tramway
 from Arcot
 to Coimbatore ^{and then light Railways} can
 be considered, and
 to what extent, as
 cheap and effective

Pro. of Mr. Foot dated 7th Dec^r
 1865 - 8th 37/12 -

"substitutes for, or
 auxiliary to ordinary
 Railways"

Fort St. George }
 7th Dec^r 1865



Recd^d 8th December
 With G.O. No. 37/12-✓

The following
 are the
 proceedings
 of the
 Committee
 of the
 Madras
 Railway
 Authorities
 on the
 subject
 of the
 proposed
 Tramway
 from
 Arcot
 to
 Coimbatore
 and
 then
 light
 Railways
 dated
 13th October
 1865

PT 1865 Dept
Proc of Govt for Decr

No 3712

Proc of the Mil Govt
Dy Decr 68

Steamway from Arcunim
to Congoerain & Papiigorden
on certain correspondence con-
taining the views of the Railways
authorities relative to the extent
to which the same can be considered
effective substitutes, for or,
auxiliaries to, ordinary
Railways.

No 161 @ 168