

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

11/10/18 DEPARTMENT.

G.O. No. 5060	Press
518-49	Mis.
Dated 24-6-18	1850.

Not to be folded or roughly handled

No. 548. Read the following Circular from the Under Secretary to the Government of India, Public Works Department, (Railway,) to the Governments of Madras, Bombay, Punjab, and Chief Commissioner of Oudh, in the Public Works Department, Railway Branch, dated Simla, 31st May 1869:
No. 10:—

REFERRING to Circular No. 9-R., dated 2nd September 1867, I am directed to forward, for the information of the Government of Madras and for communication to the Agents of Railway Companies, copies of correspondence* with the Government of Bengal having reference to a cylindrical waggon designed by the Agent of the Eastern Bengal Railway, and now in use on that line.

2. Special attention is called to these papers, and the Governor-General in Council again commends to the Government of Madras the very great importance of establishing a better proportion between the paying and dead load on Indian Railways.

No. 549. ORDER THEREON, 24th June 1869, No. 2,060.

RAILWAY, No. 38.

FORWARDED to the Consulting Engineer for Railways for communication to the Agents of the Madras and Great Southern of India Railways.

2. Major Shaw Stewart's particular attention will be drawn to paragraph 2.
(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Consulting Engineer for Railways, with ten copies of Tracing.

J. S. T. Augustin.

Enclosure to Circular No. 10 Railway.

No. 93SG., dated Fort William, the 5th May 1869.

From—Major J. HOVENDEEN, R. E., Offg. Joint Secy. to the Govt. of Bengal, P. W. Dept., Railway Branch,
To—The Secretary to the Government of India, P. W. Dept.

In reply to your letter No. 435R, dated 26th ultimo, I am directed to forward a copy of a letter noted in the margin from the Agent, Eastern Bengal Railway Company, submitting a report on the cylindrical wrought-iron wagon constructed by him, and now in use on the line.

2. A note by the Officiating Consulting Engineer, who has inspected the wagon and watched its running, accompanies.
3. The Lieutenant-Governor recommends that the Agent's proposal to construct 80 wagons on this principle to the favorable consideration of the Government of India.

No. 1645, dated 10th April 1869.

From—F. PRESTAGE, Esq., Agent, Eastern Bengal Railway,
To—The Offg. Consg. Engr. to the Govt. of Bengal, Railway Dept.

I now have the honor to forward a memorandum showing the results attending the working of the cylindrical wrought-iron wagon, which is running on this railway, and which was run experimentally over the Calcutta and South-Eastern State Railway by the train we proceeded with to Canning on the 1st instant, and brought back loaded by the train we returned with on the following day.

The wagon therein alluded to has already run upwards of 1,000 miles, and it is arranged it shall continue to be run as often as possible. In the meantime what I would recommend for the sanction of Government, is that at the end of a month or when it has run, say 5,000 miles, if the Agency and Superintendent of Rolling Stock continue to report favorably on its working, a recommendation should be forwarded to the Board to arrange for the construction of the bodies and special fittings for 80 such wagons, sufficient to form two complete trains; and an effort should be made to despatch them to this country, and place them on the road by the time of the proposed opening of the Goalundo Extension at the end of February next, for very great advantage will be found in working them across the proposed ferry at the Goria, and more particularly on account of the number of vehicles to be crossed being thus reduced more than one-half.

I would propose the cylindrical wagons should be constructed in lieu of, and forming part of, the remaining 100, for which we have the iron-work in this country, *vide* Indent 342C sanctioned by Government, and the construction of which has been deferred pending a settlement of this question, and I may remark I shall hope to be in England about the time the proposed reports on the working above referred to reach home, and I might thus be better able to explain and give on the spot any further information that may be needed by the Board.

I should further observe that, owing to the reduced cost of these wagons, it is estimated the amount still available under Indent 407C duly sanctioned by Government, will be sufficient to cover the cost of their construction, and all, therefore, that is sought from Government, is sanction for the altered design.

Referring to the memorandum, I would call particular attention to the largely increased load of straw conveyed by the cylindrical wagon as compared with the largest covered goods wagon on the Calcutta and South-Eastern State Railway; but as this is a matter which more especially affects that Railway, I will hereafter address you specifically on the subject.

Memorandum by F. PRESTAGE Esq., Agent E. B. Railway, showing the results attending the working of a cylindrical wrought-iron wagon.

The statement shows its tare, cubic content, and carrying capacity as compared with ordinary covered goods stock on this and on the Calcutta and South-Eastern State Railways.

E. B. R. Stock.								C. & S. E. S. R. Stock.							
Covered Goods originally sent from England.				Enlarged ditto made in this country.				Largest Covered Goods Wagons.				Cylindrical Wagon.			
	Ton.	Cwt.	qr.	lbs.		Ton.	Cwt.	qr.	lbs.		Ton.	Cwt.	qr.	lbs.	
Tare	5	9	2	0		6	12	2	0		6	2	0	0	
Cubic Con.	675	...	...	...	1069	...	...	...	...	812	...	...	...	...	1,575c. ft.
Load	3	9	0	0		4	18	0	0		...	...	...	...	*
Loose Jute	...	...	...	...	...	2	2	3	12	...	...	...	...	...	3 8 2 4
Loose Cotton	...	3	15	0	0	...	5	9	0	0	...	...	...	...	9 18 0 0
Gunnies	...	...	...	...	...	...	...	...	...	...	2	0	3	0	4 5 3 0
Straw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grain, Salt, Coal, & such goods.	6	16	0	0		9	3	2	0	...	6	0	0	0	9 18 0 0

* T. Cwt.

9 8 was on one occasion carried down from Kooslea.

The doors are at the ends of the wagon, and not in the centre. Mr. Prestage agrees that this is a mistake. When Mr. Prestage talks of lowering the centre of gravity of wagons, it must be understood that he is comparing the new wagons with the large rectangular wagons which he built specially for the jute trade. The centre of gravity of his new wagons is still higher than that of the East Indian Railway wagons.

I fear Mr. Prestage will find it difficult to work his goods trains with screw couplings, unless he gets more powerful engines.

On the whole, I think that this wagon, with a few slight modification, is well adapted for the jute traffic on the Eastern Bengal Railway. The Agency, East Indian Railway, do not propose to adopt it at present. They do not want to carry loose cotton if they can help it, and they can put more screwed cotton into their present wagons than the axles will carry.

No. 987G., dated Fort William, the 13th May 1869.

From—Major J. HOVENDEX, R. E., Offg. Joint Secy. to the Govt. of Bengal, P. W. Dept., Railway Branch,
To—The Secretary to the Government of India, P. W. Dept.

In continuation of this office letter No. 938G, dated 5th instant, I am directed to forward a copy of a further communication noted on the margin from the Agent, Eastern Bengal Railway Company, submitting reports by the Consulting Engineer of the Company in India, and the Superintendent of Rolling Stock, on the new cylindrical wrought-iron wagon, and soliciting permission to indent for 80 such wagons to be obtained from England in time for the opening of the extension line to Goalundo.

1. This proposal has already been recommended to the favorable consideration of the Government of India.
2. This proposal has already been recommended to the favorable consideration of the Government of India.
3. The Consulting Engineer, I am to add, adheres to the views expressed by him on the subject of cross bracing and draw bars.

No. 2654, dated 8th May 1869.

From—F. PRESTAGE, Esq., Agent, Eastern Bengal Railway,
To—The Offg. Consulting Engineer to the Govt. of Bengal, Railway Dept.

I HAVE the honor to invite your attention to my letter No. 1645, dated the 10th ultimo, with which I forwarded a memorandum showing the results attending the working of a cylindrical wrought iron wagon which is running on this Railway, and wherein I recommended that if the officers concerned continued to report favorably on its working, a recommendation should be forwarded to the Board to arrange for the construction of the bodies and special fittings for 80 such wagons sufficient to form two complete trains, and an effort should be made to despatch them to this country and place them on the road by the time of the proposed opening of the Goalundo Extension at the end of February next. The opinions expressed in the accompanying reports* by the Company's Consulting Engineer in India, and by the Superintendent of Rolling Stock, so fully endorse my own that I think it needless to wait longer before asking for sanction to send forward the necessary indent to England, and which I now have the honor to do.

* Copies of our letters Nos. 1888 and 1889, with report No. 1090, from Consulting Engineer in India. Report No. 1356, from Superintendent of Rolling Stock.

I am glad to report that during the ten trips already run by the new wagon, it has earned Rs. 579-14-0 as against Rs. 305-10-0, the amount earned in the same number of trips by one of our largest ordinary covered goods wagons carrying the same description of goods. This is a most significant fact bearing out what I have set forth in my memorandum before referred to. There is some slight difference of opinion between Mr. Leslie and Mr. Hindmarsh as to some of the details, but these will be of assistance in finally considering and deciding the matter in England.

No. 1888, dated 28th April 1869.

From—F. PRESTAGE, Esq., Agent, Eastern Bengal Railway,
To—The Consulting Engineer in India.

SOME little time since I handed you a printed copy of my memorandum showing the results attending the working of a cylindrical wrought iron wagon, dated the 10th instant, and during your stay in Calcutta, you have, I believe, examined the wagon referred to.

I shall now be obliged by your favoring me with your opinion on the following points:—
First.—With the facts before you, do you think any other form of wagon would be more suitable for the purposes proposed?

As to the suitability of such a wagon for carrying goods, we find in carrying such goods in our covered goods wagons, the only difficulty for the purpose, is that a slip of board has to be placed across the ends of the wagon, and bearing against the sliding doors, and which is awkward and liable to be lost.

With the cylindrical wagon, the doors are at the ends, and the wagon is self-sustaining in any way against the doors.

If a wagon was designed specially for carrying goods, and if, as I have proposed, or coal, such a traffic could no doubt be worked most economically. The capacity, the roof being only some 6 ft. high, and the sides being only 4 ft. high, would be found desirable to retain the present bottom and sides, which I have observed would be found to be no objection in carrying such goods, as the present wagon has been an advantage in loading cotton and produce, so far that it is necessary to load the loading with regularity.

Having so far turned our attention to the carrying of goods, we must now turn to the flows most naturally to this railway, we should I think, I would make further efforts to divert the enormous traffic in grain which passes through and across it, and of which up to September last we had only succeeded in diverting some 10 per cent. of the quantity produced in Eastern Bengal, a very large proportion of which passes our present or proposed terminus.

This is a subject that has often had my attention, and after full consideration I am of opinion the first step to be taken is to reduce the dead weight of the covered goods stock in the manner or some such manner as that proposed, not only that the paying load may be increased, but that the grain may be carried in bulk without that loss which arises either from all timber vehicles (unless unusually sound and tight), or from percolation or exposure to wind and weather arising from carrying it in open trucks.

The next step is to reduce the cost of carting and handling as much as possible at the terminus, and this, I think, can be best accomplished by running the wagons over drags, by which their contents will be dropped into godowns, which should be let at moderate rates. Appliances of this kind should, I think, form part of the arrangement of our proposed new terminus at Chitpore, where the godowns would I think, be readily taken up.

I am convinced this or some such arrangement is the best to be carried out, and with such moderate rates as could then be charged, there is no reason why the grain traffic of this country should not be as heavy and regular as the traffic of minerals in Europe.

The numerous official letters circulated by the orders of the Government of India, and more particularly Circular No. 98, dated 2nd September 1867, and Chief Secretary's letter dated so late as the 15th ultimo, prove the interest the officers of Government have taken in this important and interesting question; and in fact, that they have taken the lead in trying to bring about the change so much needed, and I hope it will be thought we have now gone some way towards giving practical effect to their views.

Note by Major J. HOVENDEX, R. E., Officiating Consulting Engineer to Government of Bengal, Railway Department, on the cylindrical wrought-iron wagon constructed by Mr. PRESTAGE, and now in use on the Eastern Bengal Railway,—dated 13th May 1869.

I HAVE carefully inspected Mr. Prestage's new cylindrical wagon, and I have watched it while running both loaded and empty. There appears no doubt that the principle on which it is constructed is admirably adapted for the special work for which it is intended, namely, for the carriage of unscrewed jute. I do not agree with Mr. Prestage in thinking that it is equally well adapted for the carriage of grain in bulk. The present wagon is an experiment. It weighs (to the best of my recollection) five tons, seventeen hundred weight, and carries nine tons of unscrewed jute. By a few modifications in construction, Mr. Prestage will probably get a wagon weighing five tons, and capable of carrying ten tons of jute. The cylindrical form has been adopted as being best adapted for packing unscrewed jute, which is brought down in the shape of drums.

The chief objections to the wagon are the want of cross bracing; this has to be left out, owing to the body of the wagon extending below the sole bars. The experimental wagon does not show any signs of giving yet, but I cannot help feeling that this is a serious defect.

The draw-spring to the through tie-bars is not sufficient. At present this is a disc of Indian rubber, and it does not work in a satisfactory manner. The substitution of a volute spring would probably remedy this defect.

The cylinder is only kept in shape by ribs of angle iron. These appear to answer the purpose well when the wagon is filled up with unscrewed fibres or straw, but I think that a heavy load of grain in bulk or coal at the bottom of the wagon would force it out of shape.

(6)

Second.—Do you see any serious objection to increasing the width and height of wagon to the standard of maximum moving dimensions as proposed in paragraph 2 of my memorandum? In judging of this, you will, I doubt not, bear in mind the advantage of reducing the length of the vehicle, not only from its reducing the length of the train, but also from its shortening the body and sole bars, and thus increasing its strength.

Third.—The object of having the door at the end no longer existing, and it being considered most desirable to have them at the sides, what kind of door would you recommend? It should be borne in mind the opening need not be larger than 4 feet by 4 feet, or sufficient to take in a bale of loose cotton, but care must be taken that all joints may be as water-tight as possible.

Fourth.—Do you think any advantage would be gained from making the plates of the body lighter or from corrugating them?

Fifth.—Would you recommend that the sole bars be of iron or of timber?

Sixth.—Do you, or do you not, think the draw bar and buffing arrangement better than that of our ordinary stock, and from this modification, and the body and end being brought down nearer the draw bar level, also from the body of the wagon being entirely of iron, do you not think the life of such a vehicle would be much greater than that of the ordinary covered goods stock?

Seventh.—As I verbally mentioned on a previous occasion for the satisfaction of Major Hovenden and of Mr. Sibley, one of the members of the Board of Agency (East Indian Railway), this wagon was on the 19th instant loaded with 12 tons of rice in bulk, and then shunted and placed foremost in a goods train, and otherwise worked in this yard, as the latter gentleman when discussing the subject the previous week, thought such a load would cause the sole bars to spread out;—It was however proved, as might have been expected, that they came together nearly to the extent of one-sixteenth, which could in no way affect the stability or running of the wagon, 5 tons 9 cwt. of the load was stowed below the ordinary platform level.

I shall, of course, be glad to receive any suggestions or remarks on any other points that may occur to you, and if you could conveniently let me have your reply early next week, I shall be obliged.

No. 1959, dated 25th April 1869.

From—F. PRESTAGE, Esq. Agent, Eastern Bengal Railway,
To—The Superintendent of Rolling Stock.

SOME little time since, I handed you a printed copy of my memorandum showing the results attending the working of a cylindrical wrought iron wagon, dated the 10th instant, and during your stay in Calcutta, you have, I believe, examined the wagon referred to.

I shall now be obliged by your favoring me with your opinion on the following points:—

First.—With the facts before you, do you think any other form of wagon would be more suitable for the purposes proposed?

Second.—Do you see any serious objection to increasing the width and height of wagon to the standard of maximum moving dimensions as proposed in para. 2 of my memorandum? In judging of this, you will no doubt bear in mind the advantage of reducing the length of the vehicle, not only from its reducing the length of the train, but also from its shortening the body and sole bars, and thus increasing its strength.

Third.—The object of having the door at the end no longer existing, and it being considered most desirable to have them at the sides, what kind of door would you recommend? It should be borne in mind the opening need not be larger than 4 feet by 4 feet, or sufficient to take in a bale of loose cotton, but care must be taken that all joints may be as water-tight as possible.

Fourth.—Do you think any advantage would be gained from making the plates of the body lighter or from corrugating them?

Fifth.—Do you recommend that the sole bars be of iron or of timber?

Sixth.—Do you, or do you not, think the draw bar and buffing arrangement better than that of our ordinary stock, and from this modification, and the body and end being brought down nearer the draw bar level, also from the body of the wagon being entirely of iron, do you not think the life of such a vehicle would be much greater than that of the ordinary covered goods stock?

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Seventh (1).—As I verbally mentioned on a previous occasion, for the satisfaction of Major Hovenden and of Mr. Sibley, one of the members of the Board of Agency (East Indian Railway), this wagon was on the 19th instant loaded with 12 tons of rice in bulk, and then shunted and placed foremost in a goods train, and otherwise worked in this yard, as the latter gentleman, when discussing the subject the previous week, thought such a load would cause the sole bars to spread out; it was however proved, as might have been expected, that they came together nearly to the extent of one-sixteenth which could in no way affect the stability or running of the wagon, 5 tons 9 cwt. of the load was stowed below the ordinary platform level.

Seventh (2).—Your opinion as to the advisability of substituting screw couplings for the present coupling chains.

Mr. Sibley concurs with us in thinking an endeavour should be made to bring about this change, if it does not seriously limit the hauling power of the locomotives.

I shall, of course, be glad to receive any suggestions or remarks on any other points that may occur to you, and if you could conveniently let me have your reply early next week, I shall be obliged.

No. 1090, dated 4th May 1869.

From—BRADFORD LESLIE, Esq. Consulting Engineer in India,
To—The Agent, Eastern Bengal Railway.

I have to acknowledge the receipt of your No. 1888 of the 28th ultimo. I cannot say that I have had an opportunity of thoroughly examining the cylindrical wrought iron wagon, but I saw sufficient to enable me to comprehend the principles aimed at in its construction, and it appears to be well adapted to fulfil the conditions of the traffic it is designed to accommodate.

For carrying drums of jute, gram, salt, coal or lime, there is no doubt the circular section is the strongest, and requires the minimum amount of stiffening, for carrying tea boxes, piece goods or pressed jute, there would be some loss of space in a circular wagon, but of course it would always carry a full load of either. As regards the increase of the width of the wagon to the standard of maximum moving dimensions, I do not know of any objection; on the contrary I should think it an advantage,—it might involve an alteration in the position of the side lights on the last carriage of the train. *Thirdly*, as regards the doors, there is no doubt these should be at the sides. I should recommend that the doors should be not less than 4' 6" wide by 5' high. The best kind of doors and least liable to damage, I am of opinion, would be single sliding doors working on rollers travelling on edge rails at the level of the sole bars, and suspended by eyes working on horizontal round iron bars at the top. These doors may easily be made perfectly weather-tight by providing raised combings at the sides of the doorway, and a sheet iron cornice with a curtain or canopy to protect the joint at the top of the doorway. The doors should be made perfectly smooth inside so as to facilitate closing the door on a full load. *Fourthly*, I do not think that any advantage would be gained by making the plates of the body lighter or from using corrugated iron. I think the inside of the wagon should be made perfectly smooth. *Fifthly*, I should decidedly recommend that the sole bars should be of iron. Where timber and iron are used together, it is found that the iron expands, and wood shrinks and contracts with the heat, and in cold wet weather the iron contracts, and the wood swells and expands, so that the fastenings soon work loose. *Sixthly*, as regards the draw bar and buffing arrangements, I have not seen enough of the working of the wagon to enable me to say whether it is or is not better than that of the ordinary stock, but it appears to me to be more simple and better calculated to resist the shock of starting and stopping in long trains. I am not quite satisfied that the through draw bar is necessary; if an iron framing is used, the ends of the framing should have sufficient transverse strength to transmit the traction through the sole bars, and I think it would be an advantage to dispense with the draw bar through the space for stowage. But I have no doubt that the depression of the centre of gravity due to the curved form of the bottom of the wagon by which the load is brought nearer the level of traction, will greatly reduce the straining of the wagon and add to the life of such a vehicle. With regard to the seventh clause of your letter, I think that if the sole bars are of iron of a strong horizontal section, there is no danger of the heavy load in the bottom of the wagon causing them to spring in; but even if this were the case, one or two angle iron ribs under the bottom would give the necessary stiffness; indeed, I should think it would be a good thing to have a pair of angle or $\perp$ iron ribs right round the body of the wagon one on each side of the doorway.

As regards horizontal diagonal bracing to resist oblique strains in going round sharp curves, I think the bottom of the body of the wagon will act as a web plate, and therefore it might be

(8)

advisable to make it a little thicker than the sides and top. The curved form of the floor of the wagon would be well adapted for discharging coal or grain in bulk by means of conical openings or hoppers near the centre of the wagon.

No. 1356, dated 7th May 1869.

From—THOS. HINDMARSH, Esq., *Lower Grade Surveyor General*,
To—The Agent, Eastern Bengal Railway.

In reply to your No. 1889 of 28th ultimo, with reference to the modifications proposed to be made to the wrought iron cylindrical wagons, I beg to offer the following remarks:—

- 1st.—Judging from the experience we have had in working the new cylindrical wagon, I do not think any class of wagon could be designed more suitable for the traffic on this line.
- 2nd.—The only objection which could, in my opinion, be offered to the wagon being increased in height and width, would be in carrying the sole bars so much outside of the centre buffer line, but there should be no difficulty in compensating for this by substituting sissoo wood for teak for the head stock or buffer beam, and by securing the head stock and sole bars by strong corner plates as shown in the accompanying drawing.
- 3rd.—The doors should, I think, be placed on the sides of the wagon, instead of the end, as shown in the accompanying drawing.
- 4th.—If the proposed modified form of wagon is adopted, I think the body could be made of lighter plates, the use of steel No. 14WG could with advantage be used; it would reduce the weight of the wagon about 9 cwt., corrugated iron would not answer so well for the purpose.
- 5th.—There would be nothing to prevent the under-frame being made of malleable iron, but I think it would not stand the commission so well as timber.
- 6th.—I am of opinion the draw bar and buffing arrangements are ample for the safety of the wagon, and barring accidents from collision or other causes, they will, in my opinion, stand as much rough usage as the ordinary goods stock.
- 7th.—The substitution of screw couplings for the present coupling chains would be advantageous, as they would shorten the train, and there would be less chance of the driver's starting rashly, thereby more or less straining the wagons. I, at first, thought this might limit the hauling power of the engine, but I find from an experiment which I made yesterday, with a train of 25 wagons of coal, containing 9 tons in each wagon, that such is not the case. The wagons were all tightly coupled up buffer to buffer, and the engine to all appearance started the train with as much ease as with the ordinary sack chain. The following is Driver J. Dow's report on the subject: "No. 1 up-rail pulled much easier with the short couplings and without the usual jerking; arrived at Kooshtea right time."

No. 630 R, dated Sm.la, the 31st May 1869.

From—Col. R. STRACHEY, R.E., Offg. Secy. to the Govt. of India, P. W. Dept.,
To—The Offg. Joint Secy. to the Govt. of Bengal, in the P. W. Dept., Railway Branch.

I AM directed to acknowledge the receipt of your No. 938 G., dated the 5th May 1869, with copy of a letter from the Agent, Eastern Bengal Railway, and report on the cylindrical wrought-iron wagon designed by him and now in use on the line, together with a note thereon by the Officiating Consulting Engineer; also, of your letter No. 957 G., dated 13th May 1869, with further papers on the subject.

2. In reply, I am directed to communicate the sanction of the Governor General in Council to the Agent's proposal to construct 80 wagons on this principle. I am to request also that an expression of the satisfaction of the Government of India may be communicated to Mr. Prestage for the attention he has given to this subject.

3. Referring to the doubt suggested by the Consulting Engineer, it is probable that the lower part of the cylinder, if firmly fixed to the longitudinal main frame pieces, will fulfil the duty of the cross bracing of the ordinary

(9)

wagon, but it may be necessary to adopt Mr. Leslie's suggestion to make the bottom of the wagon somewhat thicker than the sides and top.

4. It will of course be necessary to be careful that the standard moving dimensions adopted for Indian Railways are attended to in determining all the proportions of the new wagon.

5. Referring to the concluding paragraph of the Consulting Engineer's note of the 4th May, I am to request the submission of a special report on the nature and dimensions of the axles and springs of the goods vehicles of the Eastern Bengal Railway as compared to those of the East Indian Line, and how the former can carry between 9 and 10 tons on 4 wheels when the latter cannot.

Public Works Dept
No 2060

Proceedings of the Madras Government
Under date the 24th June 1869
Read the following

Letter from the Secy to the Govt of India
No 10 of 31st May 1869.

Forwarded to the
Consulting Engineer for
Railways for communica-
tion to the Agents of the
Madras and Great
Southern of India Railways

Major Shaw Stewart's
particular attention will
be drawn to para 2.

27.2.53/69

W.A.

To the Comdant for
Railways.

with ~~the~~ ^{the} ~~original~~ ^{original} ~~copy~~ ^{copy} ~~sent~~ ^{sent} ~~to~~ ^{to} ~~the~~ ^{the} ~~Secy~~ ^{Secy} ~~to~~ ^{to} ~~the~~ ^{to} ~~the~~ ^{the} ~~Govt~~ ^{Govt} ~~of~~ ^{of} ~~India~~ ^{India} ~~on~~ ^{on} ~~the~~ ^{the} ~~25/6/69~~ ^{25/6/69} * ~~Recd~~ ^{Recd} ~~25/6/69~~ ^{25/6/69}

W.A.

Enc 2453

Cont. of 11861 & 11862

RECEIVED

The Consulting Engineers for
Railways

Date

No 2

24 June 1860

Nos. 548-549

Cylindrical Wagon (No 1)

Circular from the following
relative to a Cylindrical
Wagon designed by the
of the Eastern Bengal Railway
now in use on that line.
and this office concerned
with instructions.

16 June 1860