Public Works (1895) Department.

CONCERNS BOTH BRITISH INDIA AND INDIAN STATES.

RAILWAY BRANCH.

G.O., No. 599-600R

DATED 23rd September

[Despatch Abstract.]

His Highness the Nizam's Guaranteed State Railway and the Bezwada Extension Railway.—The Govt. Inspector's inspection report of—for the half-year ended the 30th June 1895, Comd. to the agent & Chief Engr. for necessary action.

Forwarding Phot: on the Government Inspector's inspection report of—for the half-year ended the 30th June 1895.

Indexed.

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

HIS HIGHNESS THE NIZAM'S GUARANTEED STATE RAILWAY AND THE BEZWADA EXTENSION RAILWAY.

STANDARD 5' 6" GAUGE.

Milcage 338.

Inspection report by F. D. FOWLER, Esq., Government Inspector of Railways, Madras, for half-year ending 30th June 1895.

The inspection was made between the 5th and 9th August. The Agent and Manager and the Chief Engineer accompanied me throughout, and the District officers over their respective lengths.

2. *General.*—The general condition of the line is good and the road is in good running order, the worst portions being the colliery branch, where the rails are very much worn, and the first 30 miles out of Wadi, where the line is laid with old iron double-headed 68 lb. rails and weak fish plates also miles 333-4, where the road wants lifting and ballasting.

3. *Banks and Cuttings*—are in good order. Formation has been raised four feet in mile 192, and the slopes of the bank have been pitched up to flood level. The bank in mile 218-19 has been raised 2 feet and its slopes protected by pitching. The side drains in many of the cuttings are too small and require frequent cleaning; it would, I think, be more economical in the long run to build dry-stone ballast walls, care being taken to use stones of sufficient size; this could be done gradually, a certain sum being allotted every half-year for the purpose.

4. *Bridges and Culverts.*—The new girders to replace the old 60-foot Warren girder have been sanctioned and the iron-work for the Iyalla bridges is expected to arrive in January, the remaining spans will arrive in the next working season. It is proposed to utilise the old girders on the extension from Hyderabad to Manmar which will be on the metre gauge; if this suggestion is adopted, steps should be taken to have the girders painted at once as they are getting badly rusted.

The painting of girders all over the line should be taken in hand; from Domakal to Bezwada all girders have been painted recently, but on the rest of the line no painting has been done for five or six years and some of the girders are getting badly rusted.

The 10-foot girder bridge at mile 76/4 mentioned in the last inspection report has been completed.

The culvert at mile 76/12 is to be replaced by a 20-foot girder bridge; this should be carried out soon.

Bilmagar bridge, mile 142/8.—The ballast wall has been repaired and the woodwork tarred, but some sleepers want renewing.

The culvert at mile 177/15 will be doubled in half-year ending 31st December.

5. At mile 179/18, where the line was breached in 1894, a rough causeway of boulders has been made with two openings spanned by wooden baulks, the road over them being formed of old wooden sleepers roughly laid with a few steel sleepers to keep the gauge; the whole arrangement is of a very primitive character and should be replaced as soon as possible by a permanent structure. I understand that a culvert of six openings of 5 feet has just lately been sanctioned.

Mile 192/1 *four spans of* 20 *feet.*—The bridge was originally two spans of 20 feet. Two new spans have been added and bridge raised 4 feet; the work is completed with the exception of the pitching; a dwarf wall should be put in at the toe of the pitching to prevent slipping.

Mile 192/5.—An arched culvert of four spans of 5 feet has been put in during the half-year; the masonry is of good quality.

At mile 218 two bridges of three spans and two spans of 20 feet, respectively, have been raised 2 feet since last inspection.

Mile 258/3—a culvert of eight spans of 4 feet has been put in during the half-year.

A 6-foot arch on the colliery branch at mile 2/4 has cracked owing to settlement of one abutment; the arch should be replaced by a 10-foot girder.

At mile 264/17 three spans of 60 feet, the ballast walls have become damaged and should be rebuilt and the ends of the longitudinal should be cut off so as not to rest on the ballast wall; this remark applies to the other bridges of the same type on this line.

2/20 *foot girders at* 268/12 *and* 2/6 *foot arch at* 293/10.—The recommendations made in the previous report have been carried out.

6. 8/60 *feet at mile* 310/7—8.—The south ballast wall has been cracked by the longitudinal sleeper resting on it (see remarks on bridge at mile 264/17). The camber has not been taken out in the sleepers and pieces of wooden and felt packing have been put in under the rail to get a level road; these have in many places got shaken out and at the piers there was sometimes a length of 6 feet of rail unsupported and a space of one inch between bottom of rail and sleeper. The packing should be removed and as much of the camber as possible taken out in the sleeper. I noticed other cases where packing had been used under the rail, though not to the same extent, and would suggest that the District Engineers be instructed to examine all girder bridges in their charge and have any pieces of packing under the rails or girders removed and to send in a report when this has been done.

7. *Ballast.*—Nearly all the moorum ballast has been removed and the line is now, with the exception noted below, well ballasted throughout, mainly with broken stone, sand being used only in a few places, where the cost of stone is prohibitive. More ballast is still required between Manukota and Domakal and between Koudapilli and Bezwada.

8. *Permanent-way.*—The rails are in good condition on the main line; on the Singareni branch which is laid with 60 lb. iron rails they are wearing out rapidly particularly at the Yellandu end; one mile has already been renewed with 66½ steel flatfooted rails; the remainder of the branch should be taken in hand as soon as possible. Sixteen miles have been renewed with 78 lb. bull-headed rails, and future renewals will be made with these rails.

The condition of the steel pea-pod sleepers has been commented on in the previous half-yearly report and inquiries have been made by the Government of India as to the quality of the ballast in which the sleepers were laid and as to whether corrosion had taken place inside under the rail seat. There are in all 301 miles of line laid with these sleepers and their average age in the road is 8½ years. The percentage of removals on total was 0·045 in the half-year ending 31st December 1894 and 0·039 in the half-year under review. A careful register is kept of the sleepers in the road, all cracked or damaged sleepers being marked. The total number of damaged sleepers in the road is 4,697, but many of these are not cracked and of those which are the cracks are very slight. I examined all the cracked sleepers that I could find which had been taken out of the road; the great majority were corroded, in some cases they had lost 25 per cent. of their weight. In these the cracks usually extended from the inside of the lug along the edge of the raised table; in the case of the few which were not corroded under the rail seat the cracks ran from the angle of the jaws parallel to the rail. It is difficult to say whether these latter failures arose from bad packing or from the hammering action of the light rail, but I am inclined to think that if this were largely the case a greater number of uncorroded and cracked sleepers would be found. The sleepers in the road weigh 120 lb. on the average and are 4½ inches deep with a raised top table; a better pattern is now being sent out 3½ inches deep with no raised table and the same amount of metal, but only a small number of these have been laid in the road. The ballast is mainly broken stone and sand. Some of the banks are made of soil impregnated with salt; where sand ballast was laid on these the salt worked up into the sand ballast and caused corrosion. Wherever this has been the case the sand has been removed and replaced by broken stone. Of sleepers still in the road the cracks seem to occur as often in broken stone as in sand ballast, but it is impossible now to say in what kind of ballast they were originally laid. On the whole, I do not think the condition of these sleepers need cause anxiety. The conditions which favoured corrosion, viz., laying sand ballast in soil-impregnated with salt have altered and there does not seem to be sufficient evidence of cracks due to "fatigue" to anticipate numerous failures from this cause.

The troopsiding at Secunderabad is laid with wooden sleepers which are rapidly decaying; but as the siding is used only once a year or so at very slow speeds and is likely to be given up altogether, it is hardly worth while undertaking any expensive renewals. The plan pursued on the line of keeping the top of the sleepers uncovered is a good one as the sleepers dry more rapidly and it is easier to detect cracks, loose keys, &c.

Renewals of Rails during half-year.

Details.	Iron.			Steel.				Total iron and steel.
	Double-headed weighing 68 lb. per yard.	Others.	Total.	Flat-footed weighing 66½ lb. per yard.	Double-headed weighing 68 lb. per yard.	Bull-headed weighing 78 lb. per yard.	Total.	
1. Miles of rail in way including sidings*	67·48	33·78	101·24	617·30	19·19	34·55	671·04	772·28
2. Rails renewed miles*	23·16	1·00	24·16	0·13	..	..	0·13	24·28
3. Rails laid miles*	0·62	0·62	1·24	0·30	..	22·87	23·17	(a) 24·41

* Expressed in miles and decimals of a mile.
(a) Thirteen miles of rails more than were taken out were put in. These were put in in the cross over road from existing siding into Yellandu station yard.

Renewals of Sleepers during half-year.

Details.	Wood.			Iron.	Steel.	Total.
	Transverse.					
	Jungle 10′ × 9″ × 5″	Others.	Total.	Cast iron pots complete sleepers.	Steel pea-pod.	
1. Number of sleepers in way including sidings at the commencement of the half-year † ..	..	23,548	23,548	116,620	634,641	674,705
2. Average age of sleepers in way at the end of the half-year .. .. .. yrs.	..	15·50	15·50	21·40	8·50	12·60
3. Number removed	..	472	472	687	211	1,370
4. .. laid	..	325	325	736	338	1,399
5. Percentage of removals on total of each class.	..	2·00	2·00	0·59	0·04	0·20
6. Number of sleepers in way including sidings at the end of the half-year	..	23,397	23,397	116,669	634,768	674,734

† All these figures are based on actual count made at the end of December 1894.

9. *Rolling Stock.*—The locomotive and wagon stock is generally in good condition, but many of the passenger carriages, particularly the third class, want repainting. The Locomotive Superintendent states that, owing to the limited supply of these carriages, it is difficult to get them into the shops for the necessary repairs.

10. *Stations and Buildings.*—The stations generally are neat and tidy and sufficient goods-shed accommodation is supplied for the traffic offering. I noticed at several stations between Wadi and Vikrabad that broken panes of glass in the windows had not been renewed. The line clear and train register books were found to be well kept, but the pages should be machine-numbered.

The latrines were well kept, but distinguishing figures for men and women are wanted; at some of them also provision for lighting at night is required.

11. *Dharur.*—A small goods-shed is wanted here.

12. *Vikrabad.*—The station building is founded on black cotton soil; an extension of the original building serves as a refreshment room; the side walls of this room at the end farthest from the main building are badly cracked apparently from the subsidence

of the end wall. It is well strutted up and there is, I think, no fear of its collapsing; but it will be better to take down the newly-built portion, all of which is more or less cracked, and rebuild it, taking the foundation down to a greater depth and filling with rammed moorum and not bonding the new work into the old.

Gollagudu.—Platform wants metalling.

Hyderabad.—The roof over the station building is finished and is a great improvement to the station. The zenana siding is completed and the coping of the goods platform wall has been replaced. The ends of the goods-shed and goods platform should be floored (the former with stone slabs) and the latter with good stone metalling. The furniture in the waiting rooms is rather out of repair.

Secunderabad.—The station roof leaks in many places and the furniture is out of repair; a hut built of odd pieces of wood and corrugated iron rather spoils the appearance of the station building, and if other accommodation can be found, might be removed with advantage.

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13. *Points and Crossings.*—The angle irons at crossings alluded to in the last report have been removed. A catch siding at Darur has a weighted lever open for the siding which is held over for the main line and fastened with a pin; this is, I think, objectionable as there is nothing to prevent a careless pointsman leaving the points pinned over for main line after passing a train through them; the weighted lever should be held by the pointsman and a treadle bar added to guard against splitting of points.

14. *Signals.*—The signals are in good working order and almost without exception work easily.

15. *Fencing.*—The fencing at Hyderabad station and in a few other places wants attention, the wires are frequently very slack and the posts rest on the ground instead of being imbedded in it.

16. *Workshops.*—New locomotive shops at Secunderabad (Lalagpda) are completed. The ashpits want draining; they were nearly full of water on occasion of my visit. The erecting shop is rather dark.

(Signed) F. D. FOWLER,
Government Inspector of Railways.

MADRAS,
12th September 1895.

Note by Senior Government Inspector.

The report is satisfactory.

2. The attention of the Agent and Manager is drawn to paragraph 6 and the need of a 6 × 5 feet culvert to replace the temporary bridge at mile 179.

3. With regard to the steel sleepers in the permanent way, I consider that steps should be taken to lay down a trial length of cast iron sleepers of either the Indian Midland or Denham-Olphert's pattern to replace the steel sleepers which will require renewal in the next three or four years.

4. *Paragraph* 13.—I request the alteration of the Darur catch siding may be carried out.

OOTACAMUND,
14th September 1895.

(Signed) F. R. UPCOTT,
Senior Government Inspector.

23RD SEPTEMBER 1895, No. 599 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

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Communicated to the Agent and Manager, His Highness the Nizam's Railway, for information and necessary action.

2. A copy of these Proceedings will be forwarded for the information of the Government of India.

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(True Extract.)

Under Secy. to Govt., P.W.D.,
Railway Branch.

To the Agent and Manager, His Highness the Nizam's Railway.
" Political Department.
" Revenue Department.

Ext. T. K. Narayana Aiyangar.
Spare Copies

RAILWAY.

Govt. of {1895} Madras.

PUBLIC WORKS.

Dated September, 23rd.

Read. *Encl.*

G.O., 23rd Sept. 1895, No. 599 R.

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To the Agent and Manager, His Highness the Nizam's Railway.
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" Revenue Department.

ENDORSEMENT—dated 23rd September 1895, No. 600 R., Public Works.

Forwarded.

(By order.)

Joint Secy. to Govt., P.W.D.,
Railway Branch.

Ed. T. K. Narayana Aiyangar.
Spare Copies

RAILWAY.

Govt. of {1895} Madras.

PUBLIC WORKS.

Dated September, 23rd

Read. *Encl.*

G.O., 23rd Sept. 1895, Nos. 599, 600 R.

SEPTEMBER.

His Highness the Nizam's Guaranteed State Railway and the Bezwada Extension Railway

Forwarding Proceedings on the Government Inspector's inspection report of — for the half-year ended the 30th June 1895.

Read 25.9.95

HIS HIGHNESS THE NIZAM'S GUARANTEED STATE RAILWAY AND THE BEZWADA EXTENSION RAILWAY.

STANDARD 5' 6" GAUGE.

Mileage 338.

Inspection report by F. D. FOWLER, Esq., Government Inspector of Railways, Madras, for half-year ending 30th June 1895.

The inspection was made between the 5th and 9th August. The Agent and Manager and the Chief Engineer accompanied me throughout, and the District officers over their respective lengths.

2 *General.*—The general condition of the line is good and the road is in good running order, the worst portions being the colliery branch, where the rails are very much worn, and the first 30 miles out of Wadi, where the line is laid with old iron double-headed 68 lb. rails and weak fish plates also miles 333–4, where the road wants lifting and ballasting.

3 *Banks and Cuttings*—are in good order. Formation has been raised four feet in mile 192, and the slopes of the bank have been pitched up to flood level. The bank in mile 218-19 has been raised 2 feet and its slopes protected by pitching; the side drains in many of the cuttings are too small and require frequent cleaning; it would, I think, be more economical in the long run to build dry-stone ballast walls, care being taken to use stones of sufficient size; this could be done gradually, a certain sum being allotted every half-year for the purpose.

4 *Bridges and Culverts.*—The new girders to replace the old 60-foot Warren girder have been sanctioned and the iron-work for the Iyalla bridges is expected to arrive in January, the remaining spans will arrive in the next working season. It is proposed to utilise the old girders on the extension from Hyderabad to Manmar which will be on the metre gauge; if this suggestion is adopted, steps should be taken to have the girders painted at once as they are getting badly rusted.

The painting of girders all over the line should be taken in hand; from Domakal to Bezwada all girders have been painted recently, but on the rest of the line no painting has been done for five or six years and some of the girders are getting badly rusted.

The 10-foot girder bridge at mile 76/4 mentioned in the last inspection report has been completed.

The culvert at mile 76/12 is to be replaced by a 20-foot girder bridge; this should be carried out soon.

Bilmagar bridge, mile 142/8.—The ballast wall has been repaired and the woodwork tarred, but some sleepers want renewing.

The culvert at mile 177/15 will be doubled in half-year ending 31st December.

5 At mile 179/18, where the line was breached in 1894, a rough causeway of boulders has been made with two openings spanned by wooden baulks, the road over them being formed of old wooden sleepers roughly laid with a few steel sleepers to keep the gauge; the whole arrangement is of a very primitive character and should be replaced as soon as possible by a permanent structure. I understand that a culvert of six openings of 5 feet has just lately been sanctioned.

Mile 192/1 *four spans of* 20 *feet.*—The bridge was originally two spans of 20 feet. Two new spans have been added and bridge raised 4 feet; the work is completed with the exception of the pitching; a dwarf wall should be put in at the toe of the pitching to prevent slipping.

Mile 192/5.—An arched culvert of four spans of 5 feet has been put in during the half-year; the masonry is of good quality.

At mile 218 two bridges of three spans and two spans of 20 feet, respectively, have been raised 2 feet since last inspection.

Mile 253/3—a culvert of eight spans of 4 feet has been put in during the half-year.

A 6-foot arch on the colliery branch at mile 2/4 has cracked owing to settlement of one abutment; the arch should be replaced by a 10-foot girder.

At mile 264/17 three spans of 60 feet, the ballast walls have become damaged and should be rebuilt and the ends of the longitudinal should be cut off so as not to rest on the ballast wall; this remark applies to the other bridges of the same type on this line.

2/20 *foot girders at* 263/12 *and* 2/6 *foot arch at* 293/10.—The recommendations made in the previous report have been carried out.

6 8/60 *feet at mile* 310/7—8.—The south ballast wall has been cracked by the longitudinal sleeper resting on it (see remarks on bridge at mile 264/17) as above.

The camber has not been taken out in the sleepers and pieces of wooden and felt packing have been put in under the rail to get a level road; these have in many places got shaken out and at the piers there was sometimes a length of 6 feet of rail unsupported and a space of one inch between bottom of rail and sleeper. The packing should be removed and as much of the camber as possible taken out in the sleeper. I noticed other cases where packing had been used under the rail, though not to the same extent, and would suggest that the District Engineers be instructed to examine all girder bridges in their charge and have any pieces of packing under the rails or girders removed and to send in a report when this has been done.

7 *Ballast.*—Nearly all the moorum ballast has been removed and the line is now, with the exception noted below, well ballasted throughout, mainly with broken stone, sand being used only in a few places, where the cost of stone is prohibitive. More ballast is still required between Manukota and Domakal and between Koudapilli and Bezwada.

8 *Permanent-way.*—The rails are in good condition on the main line; on the Singareni branch which is laid with 60 lb. iron rails they are wearing out rapidly particularly at the Yellandu end; one mile has already been renewed with 66½ steel flatfooted rails; the remainder of the branch should be taken in hand as soon as possible. Sixteen miles have been renewed with 78 lb. bull-headed rails, and future renewals will be made with these rails.

The condition of the steel pea-pod sleepers has been commented on in the previous half-yearly report and inquiries have been made by the Government of India as to the quality of the ballast in which the sleepers were laid and as to whether corrosion had taken place inside under the rail seat. There are in all 301 miles of line laid with these sleepers and their average age in the road is 8½ years. The percentage of removals on total was 0·045 in the half-year ending 31st December 1894 and 0·039 in the half-year under review. A careful register is kept of the sleepers in the road, all cracked or damaged sleepers being marked. The total number of cracked sleepers in the road is 4,697, but in most of these the cracks are very slight. I examined all the cracked sleepers that I could find which had been taken out of the road; the great majority were corroded, in some cases they had lost 25 per cent. of their weight. In these the cracks usually extended from the inside of the lug along the edge of the raised table; in the case of the few which were not corroded under the rail seat the cracks ran from the angle of the jaws parallel to the rail. It is difficult to say whether these latter failures arose from bad packing or from the hammering action of the light rail, but I am inclined to think that if this were largely the case a greater number of uncorroded and cracked sleepers would be found. The sleepers in the road weigh 120 lb. on the average and are 4½ inches deep with a raised top table; a better pattern is now being sent out 3½ inches deep with no raised table and the same amount of metal, but only a small number of these have been laid in the road. The ballast is mainly broken stone and sand. Some of the banks are made of soil impregnated with salt; where sand ballast was laid on these the salt worked up into the sand ballast and caused corrosion. Wherever this has been the case the sand has been removed and replaced by broken stone. Of sleepers still in the road the cracks seem to occur as often in broken stone as in sand ballast, but it is

impossible now to say in what kind of ballast they were originally laid. On the whole, I do not think the condition of these sleepers need cause anxiety. The conditions which favoured corrosion, viz., laying sand ballast in soil impregnated with salt have altered and there does not seem to be sufficient evidence of cracks due to "fatigue" to anticipate numerous failures from this cause.

The troopsiding at Secunderabad is laid with wooden sleepers which are rapidly decaying; but as the siding is only used once a year or so at very slow speeds and is likely to be given up altogether, it is hardly worth while undertaking any expensive renewals. The plan pursued on the line of keeping the top of the sleepers uncovered is a good one as the sleepers dry more rapidly and it is easier to detect cracks, loose keys, &c.

Renewals of Rails during half-year.

Details.	Iron.			Steel.				Total iron and steel.
	Double-headed weighing 68 lb. per yard.	Others.	Total.	Flat-footed weighing 66½ lb. per yard.	Double-headed weighing 68 lb. per yard.	Bull-headed weighing 78 lb. per yard.	Total.	
1. Miles of rail in way including sidings * ..	67·46	33·78	101·24	617·30	19·19	34·55	671·04	772·28
2. Rails removed miles *	23·16	1·00	24·16	0·12	..	..	0·12	24·28
3. Rails laid miles *	0·62	0·62	1·24	0·30	..	22·87	23·17	(a) 24·41

* Expressed in miles and decimals of a mile.

(a) Thirteen miles of rails more than were taken out were put in. These were put in in the cross over road from mining siding into Yellandu station yard.

Renewals of Sleepers during half-year.

Details.	Wood.			Iron.	Steel.	Total.
	Transverse.					
	Jungle 10′ × 9″ × 5″	Others.	Total.	Cast iron pots complete sleepers.	Steel pea-pod.	
1. Number of sleepers in way including sidings at the commencement of the half-year † ..	..	23,544	23,544	116,520	634,641	6,74,705
2. Average age of sleepers in way at the end of the half-year .. .. .. yrs.	..	15·50	15·50	21·40	8·50	12·60
3. Number removed	..	472	472	687	211	1,370
4. ,, laid	..	325	325	736	338	1,399
5. Percentage of removals on total of each class.	..	2·00	2·00	0·59	0·04	0·20
6. Number of sleepers in way including sidings at the end of the half-year	..	23,397	23,397	116,569	634,768	674,734

† All these figures are based on actual count made at the end of December 1894.

Rolling Stock.—The locomotive and wagon stock is generally in good condition, but many of the passenger carriages, particularly the third class, want repainting. The Locomotive Superintendent states that, owing to the limited supply of these carriages, it is difficult to get them into the shops for the necessary repairs.

Stations and Buildings.—The stations generally are neat and tidy and sufficient goods-shed accommodation is supplied for the traffic offering. I noticed at several stations between Wadi and Vikrabad that broken panes of glass in the windows had not been renewed. The line clear and train register books were found to be well kept, but the pages should be machine-numbered.

The latrines were well kept, but distinguishing figures for men and women are wanted; at some of them also provision for lighting at night is required.

Dharur.—A small goods-shed is wanted here.

Vikrabad.—The station building is founded on black cotton soil; an extension of the original building serves as a refreshment room; the side walls of this room at the end farthest from the main building are badly cracked apparently from the subsidence

of the end wall. It is well strutted up and there is, I think, no fear of its collapsing; but it will be better to take down the newly-built portion, all of which is more or less cracked, and rebuild it, taking the foundation down to a greater depth and filling with rammed moorum and not bonding the new work into the old.

Gollagudu.—Platform wants metalling.

Hyderabad.—The roof over the station building is finished and is a great improvement to the station. The zenana siding is completed and the coping of the goods platform wall has been replaced. The ends of the goods-shed and goods platform should be floored (the former with stone slabs) and the latter with good stone metalling. The furniture in the waiting rooms is rather out of repair.

Secunderabad.—The station roof leaks in many places and the furniture is out of repair; a hut built of odd pieces of wood and corrugated iron rather spoils the appearance of the station building, and if other accommodation can be found, might be removed with advantage.

Yellandu.—The alteration to the colliery siding point suggested in last report has been made and runaway vehicles cannot escape on to main line.

13 Points and Crossings.—The angle irons at crossings alluded to in the last report have been removed. A catch siding at Darur has a weighted lever open for the siding which is held over for the main line and fastened with a pin; this is, I think, objectionable as there is nothing to prevent a careless pointsman leaving the points pinned over for main line after passing a train through them; the weighted lever should be held by the pointsman and a treadle bar added to guard against splitting of points.

14 Signals.—The signals are in good working order and almost without exception work easily.

15 Fencing.—The fencing at Hyderabad station and in a few other places wants attention, the wires are frequently very slack and the posts rest on the ground instead of being imbedded in it.

16 Workshops.—New locomotive shops at Secunderabad (Lalaguda) are completed. The ashpits want draining; they were nearly full of water on occasion of my visit. The erecting shop is rather dark.

Madras,
12. Feb 95

(Signed) F. D. FOWLER,
Government Inspector of Railways.

Note by Senior Government Inspector.

1. The report is satisfactory.
2. The alterations of the agent & manager is drawn to para. 6 and the need of a 6 × 5' culvert to obtain the temporary bridge at mile 179— the steel sleepers in the permanent way. I concur.
3. With regard to this permanent way, I consider that steps should be taken to lay down a trial length of cast iron sleepers either the Indian Midland or Denham sleepers pattern to replace the steel sleepers lately laid which will require renewal in the next 3 or 4 years.
4. Para 13 & 14 report the alterations of the Darur catch siding may be carried out

F. Rutherford
Senior Govt. Inspector of Railways

Inspection Report of the Hyderabad Nizam's Guaranteed State and the Begwada Extension Railway.

Forwarded to His Excellency the Governor & Honorable Members for information.

F. Rutherford
Jt. Secy. to Govt. P.W.D. Ry. Br.
12/10/95

No. 599. R. dated 23.9.95

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

A/-

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

Report on the inspection of H.H. the Nizam's Guaranteed State Railway and the Nizamabad Sultanabad Railway for the half year ended 30 June 95.

Communicated to the Agent & Manager H.H. the Nizam's Rly for information & necessary action.

2. A copy of the Proceedings may be forwarded for the information of the Govt of India.

No. 600. R. dated 23.9.95

Forwarded

YBJ 19/9

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From 23

The Agent & Manager H.H. the Nizam's Rly
& Political Secretary
& Resident Secretary

DESPATCHED

A/-

No 599/600. Rd 23.9.96.