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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	1744-45	Press
B.P. No.		Mis.
Dated	11 - 7 -	195 -
		6876

Not to be folded or roughly handled

Read the following papers :—

No. 154. From Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Madras, 25th May 1876, No. 257.

I HAVE the honor to enclose herewith Statements A, B, C, and D, showing the progress made during the quarter ended 31st March 1876, on the construction works of the Northern Extension of the South Indian Railway, together with a brief descriptive report by the Chief Engineer.

2. The statements for the Southern Extension have not yet come to hand, but shall be submitted on receipt.

3. As directed in the Order of Government No. 516, of the 25th February last, statement showing the dates of arrival of materials for brake vans from England and the dates of their erection is also enclosed. Explanations of the causes of delay in the erection of those still in the shops have been called for.

No. 154-A. From the same Officer, dated Madras, 30th May 1876, No. 262.

IN continuation of this office No. 257 of the 25th instant, I have the honor to enclose herewith Statements A, B, and C, showing the progress made during the quarter ended 31st March 1876, on the construction of the Southern Extension of the South Indian Railway.

2. The money columns are left blank in Statement A, as the details of the expenditure have not yet been audited.

No. 154-B. From the same Officer, dated Madras, 21st June 1876, No. 304.

IN continuation of letters, Nos. 257 and 262, dated the 25th and 30th ultimo, respectively, I have the honor to submit herewith duplicate copies of Statements A of the Progress Report of the South Indian Railway for the first quarter of the current year, with the money columns filled in.

2. With reference to the concluding portion of paragraph 3 of letter No. 257, it is explained that the delay in the erection of the parts of the eight goods brake vans that arrived in India on the 17th November and 27th December 1875 is due to the great pressure put upon the Locomotive Superintendent for cotton trucks. It is stated that they are all in hand, and will be turned out of the shops for use very

SOUTH INDIAN RAILWAY.
ENGINEERING DEPARTMENT.

General Progress Report of the Southern Extension from Trichinopoly to Tuticorin, 215 Miles 1 Chain, for the Quarter ending 31st March 1876.

Proceedings of the Madras Government, Public Works Department,
11th July 1876. No. 1,745.

Reference to Heads of Estimate.	Details.	TOTAL ESTIMATE.		ACTUAL INDIAN EXPENDITURES.		NUMBERS.			QUANTITIES.			PROBABLE DATE		Remarks.
		Indian Expenditures.	Value of English Stores.	During quarter.	Total from commencement to end of quarter.	Total.	Furnish- ed.	In hand.	Total as per Estimate.	Executed dur- ing quarter.	Executed to end of quar- ter.	Of completion.	By which per- manent-way can be laid if required.	
I.	Preliminary Expenses ...	6,52,418	...	...	...	M. CHS.	M. CHS.	M. CHS.	C. FT.	C. FT.	C. FT.	...	...	Culverts under level crossings, station, compound walls, &c. Inclusive of sid- ings. a Rails in depot at Trichinopoly 1,143. b Sleepers in depot at Trichinopoly 705.
II.	Land ..	...	...	...	...	...	...	...	...	...	...	...	...	
III.	Construction of Line-- Earthwork, Embankments, Cuttings, &c. Minor Bridges and Culverts... Large Bridges (as per State- ment B.) Fencing ... Other Items ...	7,02,278 5,65,691 4,95,296 1,40,000 1,47,454	... 1,04,453 3,92,284	8,700 2,059 3,835 5,423 2,409	6,09,929 3,95,233 3,05,645 69,991 36,956	215 1 No. 590 31 215 1 ...	215 1 No. 590 31 202 24 ...	107,584,524 1,285,551 599,967	189,405 792 1,539	111,244,927 1,069,450 470,488 ... 166,150	...	...	...	
IV.	Ballast and Permanent-way-- Ballast ... Ralls ... Wooden Sleep- ers ... Stations and Buildings (as per Statement C)-- (a) Platforms (b) Passenger Buildings (c) Goods Sheds (d) Watering arrangements (e) Staff quarters, by rooms (f) Engine Sheds and Workshops, (g) Small Items ...	2,57,657 ... 5,38,738 3,50,768 1,78,955 1,55,923 77,881	 3,377,890 3,379 ... 51,070 80,159	6,335 ... 6,823 19,997 9,277 5,108 8,051	1,45,117 ... 2,65,550 2,16,850 67,457 62,963 44,944	215 1 41 39 40 33 18 13 19 10 399 144 4 1 159 91	224 17 224 17 224 17	...	18,250,925	585,714	15,092,295	31st August 1876.	...	

Proceedings of the Madras Government, Public Works Department,
11th July 1876. No. 1,745.

Reference to Heads of Estimate.	Details.	Indian Expenditures.	Value of English Stores.	During quarter.	Total from commencement to end of quarter.	Total.	Furnished.	In hand.	Total as per Estimate.	Executed during quarter.	Executed to end of quarter.	Of completion.	By which permanent-way can be laid if required.	Remarks.
VI.	Temporary Workshop* Do. Staff quarters* Telegraph ... Plant ... Rolling Stock ... Maintenance ... Establishment ... Contingencies ...	12,000 1,97,288 3,16,350 2,58,015 ...	... 1,53,273 7,66,450	... 625 6,130 51,934 ...	... 9,831 7,912 57,660 80,596	... 9,831 7,912 57,660 80,596	80 p.c. 100 p.c.	...	...	...	...	...	...	*Sanction and expenditure under these heads is included under "permanent staff quarters and workshops."

NEGAPATAM, 30th May 1876. (Signed) J. SMITH, Chief Auditor.

(Signed) R. BURN, Dy. Govt. Examiner of Railway Accounts.

(Signed) W. S. BETTS, Agent.

Cons. Eng. for Railways

*Proceedings of the Madras Government, Public Works Department,
11th July 1876. No. 1,745.*

B.

*Progress Report of large Bridges in Southern Extension from Trichinopoly to Tuticorin,
215 Miles 1 Chain, for Quarter ending 31st March 1876.*

Names of Bridges.	Founda- tions.	Abutments and Piers up to Springing or Girder- Level.	Arching or erec- tion of Girders.	Other Items.	Remarks.
District No. 1.—Bridge at 0 mile 50 chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	3-20 feet girders.
Do. No. 1.—Coriar bridge at 3 miles 43 chains. Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	5-30 " "
Do. No. 1.—Bridge at 4 miles 2 chains and 61 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	4-20 " "
Do. No. 2.—Bridge at 2 miles 41 chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	4-20 " "
Do. No. 2.—Bridge at 9 miles 51 chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	3-20 " "
Do. No. 3.—Bridge at 1 mile 45 chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	5-20 " "
Do. No. 3.—Bridge at 9 miles 40 chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	1-70 " "
Do. No. 3.—Bridge at 14 miles 45 chains and 89 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	3-30 " "
Do. No. 4.—Bridge at Kullar Nullah at 5 miles 70½ chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	2-30 " "
Do. No. 4.—Molupadi river at 8 miles 42 chains and 70 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	6-30 " "
Do. No. 5.—Anavoolothan Nullah at 3 miles 8 chains and 96 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	3-20 " "
Do. No. 7.—Vygay bridge at 5 miles 13 chains and 40 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	15-70 " " Not coped.
Do. No. 8.—Gundar bridge at 5 miles 51 chains and 50 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	7-30 feet girders.
Do. No. 8.—Shevaracotay bridge at 10 miles 46 chains and 49 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	6-30 " "
Do. No. 8.—Bridge at 14 miles 10 chains and 80 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	2-30 " "

*Proceedings of the Madras Government, Public Works Department,
11th July 1876. No. 1,745.*

Progress Report of large Bridges in Southern Extension, &c.—(Continued.)

Names of Bridges.	Founda- tions.	Abutments and Piers up to Springing or Girder Level.	Arching or erec- tion of Girders.	Other Items.	Remarks.
District No. 9.—Viridupatti river at 7 miles 31 chains and 53 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	9-30 feet girder.
Do. No. 9.—Kulingapuri at 13 miles 72 chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	4-20 " "
Do. No. 9.—Vpacharapatti at 14 miles 2 chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	3-20 " "
Do. No. 10.—Bridge at 2 miles 23 chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	5-70 " "
Do. No. 10.—Bridge at 6 miles 35 chains and 46 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	5-50 " "
Do. No. 10.—Bridge at 8 miles 31 chains and 14 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	12-70 " "
Do. No. 10.—Bridge at 8 miles 64 chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	1-70 " "
Do. No. 10.—Bridge at 12 miles 35 chains and 52 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	3-20 " "
Do. No. 11.—Nulli bridge at 0 mile 73 chains and 25 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	4-30 " "
Do. No. 12.—Bridge at 2 miles 2 chains and 37 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	3-20 " "
Do. No. 12.—Bridge at 3 miles 27 chains and 15 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	3-20 " "
Do. No. 13.—Kurthapilli Nuttur Nullah at 2 miles 45 chains and 78 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	3-50 " "
Do. No. 13.—Shoramungalum Nullah at 3 miles 66 chains and 75 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	4-50 " "
Do. No. 14.—Chittaur bridge at 5 miles 9 chains— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	10-70 " "

Progress Report of large Bridges in Southern Extension, &c.—(Concluded.)

Names of Bridges.	Foundations.	Abutments and Piers up to Springing or Girder Level.	Arching or erection of Girders.	Other Items.	Remarks.
District No. 14.—Bridge at 2 miles 45 chains and 69 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	3-20 feet girders.
Do. No. 14.—Bridge at 13 miles 69 chains and 66 links— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	...	2-30 „ „

C.

Progress Report of Stations of the Southern Extension from Trichinopoly to Tuticorin, 215 Miles
1 Chain, for Quarter ending 31st March 1876.

Names of Stations.	(a) Platforms.	(b) Passengers' Buildings.	(c) Goods Sheds.	(d) Watering arrangements.	(e) Staff Quarters, by Rooms.	(f) Engine Sheds.	(g) Small Items.	Remarks.
District No. 1.—Trichinopoly Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	...	100 Completed.	53 Completed.	100 Completed.	100	1-42 feet turn-table. 1-16 feet turn-table. Compound wall. Trichinopoly Station.
Do. No. 1.—Kolattur Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	...	...	100	Platelayers' huts and gate lodges both stations.
Do. No. 2.—Manarparai Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	73 Completed.	...	...	16	Platelayers' huts and gate lodges.
Do. No. 3.—Vaiyampatti Station— Percentage done ... Date of completion ...	73 Completed.	79 Completed.	...	Well sunk.	...	...	100	Do. do.
Do. No. 4.—Vadamadura Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	86 Completed.	...	...	...	Semaphore signals both stations. Platelayers' huts and gate lodges both stations.
Do. No. 4.—Dindigul Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	96 Completed.	...	...	83	Do. do.
Do. No. 5.—Amayanayakanur Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	...	...	89	Semaphore signal.
Do. No. 6.—Sholavandan Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	...	...	89	Platelayers' huts and gate lodges.

Progress Report of Stations of the Southern Extension, &c.—(Concluded.)

Names of Stations.	(a) Platforms.	(b) Passengers' Buildings.	(c) Goods Sheds.	(d) Watering arrangements.	(e) Staff Quarters, by Rooms.	(f) Engine Sheds.	(g) Small Items.	Remarks.
District No. 7.—Madura Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	97 Completed.	100 Completed.	83 Completed.	93 Completed.	100 Completed.	1-42 feet turn-table. 1-16 feet turn-table. Weigh bridge. Boundary wall. 1-12 inch drains under road approach. Semaphore signal. Platelayers' huts and gate lodges both stations. Madura Station.
Do. No. 7.—Tiruparangundram Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	...	100 Completed.	...	...	83	Platelayers' huts and gate lodges both stations.
Do. No. 8.—Tirumangalam Station— Percentage done ... Date of completion ...	100 Completed.	83 Completed.	95 Completed.	100 Completed.	...	...	...	Platelayers' huts and gate lodges. 8 drains under level crossings. Semaphore signal.
Do. No. 9.—Virdupatti Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	...	...	100	Platelayers' huts and gate lodges. 1 culvert and 2 drains under level crossings.
Do. No. 10.—Sattur Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	88 Completed.	...	...	100	Platelayers' huts and gate lodges. 1 culvert and 2 drains under level crossings.
Do. No. 11.—Kovilpatti Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	90 Completed.	...	...	100	Platelayers' huts and gate lodges. 4 culverts under level crossings.
Do. No. 12.—Kadambur Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	100 Completed.	...	...	72	1-42 feet turn-table, Maniachi station. Platelayers' huts and gate lodges both stations.
Do. No. 12.—Maniachi Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	98 Completed.	...	...	54	1-42 feet turn-table. 2-16 do. Weigh bridge. Semaphore signal. Compound wall. Platelayers' huts and gate lodges.
Do. No. 13.—Tuticorin Station— Percentage done ... Date of completion ...	100 Completed.	87 Completed.	61 Completed.	12 Completed.	...	93 Completed.	49 26 44 100 7	1-42 feet turn-table. 2-16 do. Weigh bridge. Semaphore signal. Compound wall. Platelayers' huts and gate lodges.
Do. No. 14.—Gengundam Station— Percentage done ... Date of completion ...	100 Completed.	100 Completed.	100 Completed.	84 Completed.	...	...	100 11 75 100	1-42 feet turn-table. 2-16 do. Weigh bridge. Compound wall. Semaphore signal. Platelayers' huts and gate lodges both stations. Tuticorin Station.
Do. No. 14.—Tinnevely Station— Percentage done ... Date of completion ...	100 Completed.	87 Completed.	92 Completed.	100 Completed.	23 Completed.	94 Completed.	100 88	Platelayers' huts and gate lodges both stations.

(Signed) F. SMITH,
for Acting Chief Engineer,
TRICHINOPOLY,
31st March 1876.

Cons. Eng. for Railways

B.

Progress Report of large Bridges in Northern Extension from Madras to Tanjore, 217 Miles
0 Chains, for Quarter ending 31st March 1876.

Names of Bridges.	Founda- tions.	Abutments and Piers up to Springing or Girder Level.	Arching or erec- tion of Girders.	Other Items.	Remarks.
District No. 1.—Coorn river bridge at 2 miles 76 chains— Percentage done ... 100 Date of completion ... Completed.	...	93	80	...	5-40 feet girders.
Do. No. 1.—Adyar river bridge at 6 miles 50 chains— Percentage done ... 100 Date of completion ... Completed.	...	100	100	...	6-66 „ „
Do. No. 2.—Oorapaukum bridge at 21 miles 78 chains 64 links— Percentage done ... 100 Date of completion ... Completed.	...	100	100	...	5-20 „ „
Do. No. 2.—Gadavancheri river bridge at 23 miles 51 chains— Percentage done ... 100 Date of completion ... Completed.	...	100	100	...	4-20 „ „
Do. No. 3.—Chingleput tank bridge at 33 miles 74 chains 60 links— Percentage done ... 100 Date of completion ... Completed.	...	100	100	...	6-20 „ „
Do. No. 4.—Bridge at 42 miles 8 chains 66 links— Percentage done ... 100 Date of completion ... Completed.	...	100	100	...	4-20 „ „
Do. No. 4.—Palar river bridge at 42 miles 65 chains 14 links— Percentage done ... 81 Date of completion ...	...	...	...	...	18-120 „ „
Do. No. 4.—Bridge at 44 miles 69 chains— Percentage done ... 59 Date of completion ...	...	76	...	...	6-25 „ „
Do. No. 4.—Bridge at 45 miles 30 chains 30 links— Percentage done ... 100 Date of completion ... Completed.	...	87	...	...	4-20 & 1-25 ft. girders.
Do. No. 4.—Karanguli river bridge at 49 miles 11 chains 5 links— Percentage done ... 100 Date of completion ... Completed.	...	87	...	...	11-40 feet girders.
Do. No. 5.—Bridge at 63 miles 58 chains— Percentage done ... 100 Date of completion ... Completed.	...	100	...	...	4-20 „ „
Do. No. 5.—Bridge at 64 miles 44 chains— Percentage done ... 100 Date of completion ... Completed.	...	94	...	...	8-25 „ „
Do. No. 6.—Saran river bridge at 69 miles 34 chains— Percentage done ... 33 Date of completion ...	...	51	...	...	8-25 „ „
Do. No. 6.—Bridge at 76 miles 13 chains 25 links— Percentage done ... Rock Date of completion ...	...	47	...	...	2-30 „ „ arches.
Do. No. 6.—Bridge 77 miles 2 chains 30 links— Percentage done ... 66 Date of completion ...	...	...	...	...	8-20 „ „ girders.
Do. No. 6.—Chendur river bridge at 84 miles, 29 chains 10 links— Percentage done ... Date of completion ...	...	...	...	...	2-100 feet girders just commenced. This was originally a 7-30 feet girder bridge; the work that was done on it has been taken up.
Do. No. 6.—Gingee river bridge at 85 miles 69 chains 90 links— Percentage done ... 41 Date of completion ...	...	31	...	...	

Progress Report of large Bridges in Northern Extension from Madras to Tanjore, &c.—(Conold.)

Names of Bridges.	Founda- tions.	Abutments and Piers up to Springing or Girder Level.	Arching or erec- tion of Girders.	Other Items.	Remarks.
Di-strict No. 7.—Vikravandi river bridge at 92 miles 14 chains 12 links— Percentage done ... 27 Date of completion ...	...	...	...	...	5-30 feet girders.
Do. No. 7.—Pombay river bridge at 97 miles 3 chains 8 links— Percentage done ... 95 Date of completion ...	...	94	...	...	3-30 „ „
Do. No. 8.—Panar river bridge at 105 miles 3 chains— Percentage done ... 45 Date of completion ...	...	...	...	...	17-100 „ „
Do. No. 9.—Guddelam river bridge at 121 miles 4 chains— Percentage done ... 79 Date of completion ...	...	...	...	...	10-160 „ „
Do. No. 9.—Cuddalore backwater bridge at 127 miles 34 chains— Percentage done ... 81 Date of completion ...	...	...	...	...	1-70 „ „
Do. No. 10.—Bridge at 134 miles 66 chains— Percentage done ... 16 Date of completion ...	...	...	...	...	3-30 „ „
Do. No. 12.—Coleroon river bridge at 155 miles 57 chains 53 links— Percentage done ... 3 Date of completion ...	...	...	...	...	14-150 „ „
Do. No. 15.—Veernasholanar river bridge at 185 miles 76 chains 34 links— Percentage done ... 17 Date of completion ...	...	...	...	...	4-40 „ „
Do. No. 15.—Arasalar river bridge at 194 miles 71 chains 50 links— Percentage done ... 45 Date of completion ...	...	...	...	...	4-40 „ „
Do. No. 17.—Vettar river bridge at 211 miles 42 chains 93 links— Percentage done ... 63 Date of completion ...	...	6	...	...	4-50 „ „
Do. No. 17.—Vennar river bridge at 214 miles 33 chains 46 links— Percentage done ... 81 Date of completion ...	...	19	...	...	6-50 „ „
Do. No. 17.—Vadavar river bridge at 215 miles 35 chains 46 links— Percentage done ... 100 Date of completion ... Completed.	...	90	...	...	4-30 „ „

TRICHINOPOLY,
31st March 1876.
19th May 1876.

(Signed) R. WHITE,
for Chief Engineer.
(„) W. S. BETTS,
Agent.

Proceedings of the Madras Government, Public Works Department,
11th July 1876. No. 1,745.

C.

Progress Report of Stations of the Northern Extension from Madras to Tanjore, 217 Miles 0 Chains,
for Quarter ending 31st March 1876.

Name of Stations.	(a) Platforms.	(b) Passengers' Buildings.	(c) Goods Sheds.	(d) Watering arrangements.	(e) Staff Quarters, by Rooms.	(f) Engine Sheds.	(g) Small Items.	Remarks.
District No. 1.—Madras Station— Percentage done ... Date of completion. ...	...	...	100 Completed.	...	...	63	65	Boundary wall to goods shed.
Do. No. 1.—Chetput Station— Percentage done ... Date of completion. ...	77	...	...	...	...	...	2	Platelayers' huts and gate lodges, 3 stations.
Do. No. 1.—Saidapet Station— Percentage done ... Date of completion. ...	10	...	...	...	...	...	...	...
Do. No. 2.—Guindy Station— Percentage done ... Date of completion. ...	100	...	...	...	...	...	100	Boundary wall at road crossing.
Do. No. 2.—St. Thomas' Mount Station— Percentage done ... Date of completion. ...	80	...	...	...	...	...	15	Platelayers' huts and gate lodges, both stations.
Do. No. 3.—Guduvancheri Station— Percentage done ... Date of completion. ...	...	...	...	51	...	...	19	Do. do.
Do. No. 3.—Chingleput Station— Percentage done ... Date of completion. ...	...	...	...	...	...	...	14 59	Compound wall, Jail wall at entrance to fort.
Do. No. 6.—Tindivanam Station— Percentage done ... Date of completion. ...	44	...	...	...	...	...	93 100	5 Culverts under level crossings, 1 foot-path style.
Do. No. 9.—Tirupapuliyur Station— Percentage done ... Date of completion. ...	98	...	...	...	...	...	100 100 66	Boundary wall, 4 Road culverts and 2 Irish bridges, Platelayers' huts and gate lodges.
Do. No. 10.—Kuddakadu— Percentage done ... Date of completion. ...	...	...	...	...	...	...	26	Platelayers' huts and gate lodges.

a. Last report gave 100 per cent. for 1 platform only, present report shows the percentage for 3.

b. Do. 100 „ for ash-pit only, do. do. for ash-pit, tank-house, and well.

TRICHINOPOLY,
31st March 1876.

19th May 1876.

(Signed) R. WHITE,
for Chief Engineer.

(„) W. S. BETTS,
Agent.

Proceedings of the Madras Government, Public Works Department,
11th July 1876. No. 1,745.

D.

General Progress Report of Work in Erecting and Building Locomotive and Rolling Stock for
Quarter ending 31st March 1876.

	Number sanctioned.	Number erected up to 31st December 1875.	NUMBER ERECTED DURING CURRENT YEAR.		Building or under erection at end of quarter.	Arrived at Shops during quarter.	Arrived at Port during quarter.	Balance to arrive in Port.
			During quarter.	To end of quarter.				
Locomotive Engines and Tenders	82	35	14	49	23	11	11	10
Royal Saloon carriages	3	3	...	3	...	...	...	...
(Composite do.	12	7	...	7	2	2	...	...
1st Class carriages	18	12	...	12	2	2	...	...
2nd „	10	5	...	5	2	2	...	...
3rd „	176	85	7	92	25	23	...	...
Passengers' Brake Vans	37	11	...	11	12	12	...	...
Post Office Vans	3	1	...	1	2	2	...	...
Horse Boxes	20	11	...	11	3	3	...	...
Carriage Trucks	4	...	...	...	4	4	...	...
Goods Brake Vans	16	11	...	11	4	2	...	...
Covered Goods Wagons	580	273	104	377	109	46	...	...
Ballast Wagons	150	98	22	120	...	...	...	...
Open Goods do.	80	37	4	41	19	...	...	...
Timber Trucks	27	21	3	24	2	...	...	...
Gunpowder Vans	3	2	1	3	...	1	...	...
Salt Trucks	40	10	1	11	21	10	...	...
High Sided open Trucks	229	110	13	123	61	...	...	...
Cotton Trucks	100	...	...	...	66	18	...	...
Five Tons Travelling crane	2	1	...	1	...	...	...	...
Sets of Iron work (Carriages)	230	143	...	...	...	...	50	87
Do. (Wagons)	1,227	907	...	...	...	...	77	243
Springs	6,023	6,023	...	...	...	...	...	...
Wheels and Axles	3,014	2,684	...	...	...	...	178	152

Statement of Brake Vans to 31st March 1876.

No.	Date of arrival in Shop.	No.	Date when turned out of Shop.	Remarks.
<i>Passenger Brake Vans.</i>				
3	31st May 1875	{ 1	19th June 1875	Erected at Madras. Landed at Madras. Were not erected as they were not immediately required. Were sent down to Negapatam in November and erected.
		{ 1	21st " "	
		{ 1	5th July " "	
		{ 1	Aug. " ...	
3	6th July " "	{ 1	23th Dec. " "	
		{ 1	29th " " "	
2	15th Oct. " "	{ 1	7th Nov. " "	
3	6th Dec. " "	{ 1	25th " " "	
2	1st Mar. 1876	{ 3	29th Dec. " "	
3	3rd " " "	{ ...	...	
7	24th " " "	{ ...	...	
<i>Goods Brake Vans.</i>				
5	12th Mar. 1874	5	April 1875	Four constructed and one erected. This was landed at Madras in June 1874. Not being required was sent down to Negapatam and erected.
1	Sept. " "	1	Sept. 1874	
1	18th Nov. " "	1	Dec. " "	Erected at Cuddalore. Negapatam. Not erected.
4	4th Sept. 1875	4	25th Sept. 1875	
2	17th Nov. " "	...	...	
2	27th Dec. " "	...	...	

NEGAPATAM, 19th April 1876.
21st April 1876.

(Signed)

M. BUDGE, for Loco. and Car. Supdt.
W. S. BETTS, Agent.

SOUTH INDIAN RAILWAY.

Letter from the Chief Engineer, to the Agent, dated Trichinopoly, 25th April 1876, No. 9,521.

In continuation of my No. 9,407, of 24th instant, which accompanied the Tabular Progress Report for the quarter ended 31st March 1876, I have now the pleasure to offer the following remarks in explanation of the progress shown in the tables. In the first place, I have to point out the alteration of the figures in the column "totals as per estimate"; these have been made to agree with the quantities given in the revised estimates last submitted.

SOUTHERN EXTENSION.

I did not consider it necessary to compile tables of progress made during the quarter on the Southern Extension. Since the opening of the portion of the line between Madura and the south on the 1st January, work has been confined to the completion of station buildings and sidings, the coping of the bridges, and the full ballasting of the line. In the latter work four trains were employed during the greater part of the quarter; the number was latterly reduced to three trains, and one of these will shortly be available for work elsewhere.

NORTHERN EXTENSION.

Earthwork.—From the tables it will be seen that the total executed to the end of the quarters is 84,352,779 cubic feet, and the quantity done during the quarter is 6,009,147 cubic feet. The earthwork from Madras to Porto Novo (145 miles) was practically completed before the commencement of the period under report, and the above progress was therefore mainly between Porto Novo and Tanjore. Work in the Tanjore delta, suspended for several months at the end of 1875, owing to the lands being under irrigation, was resumed in January, and satisfactory progress has since then been made. Sanction having been obtained to the diversion of the line at the Vellar river permitted works at the high banks there to be commenced, and the remaining portions of the land on District 13 were handed over to us in February, since which date work has there been in progress. The prevalence of the rice harvest has greatly interfered with the progress of the work in the South Arcot and Tanjore Districts. From one and all of the District Engineers I received complaints of the scarcity of labor, a difficulty which was not removed until March. The entire available labor of the country was reported to be engaged in the fields, and to have drawn this labor away from its proper market by the inducement of higher rates of pay on our works would have been unfair to the country and costly to the Railway.

Minor Bridges and Culverts.—The tabular report shows a progress under this head of 172,207 cubic feet, mainly due to work done on Districts 4, 5, 6, 7, 8, 14, and 17, and the largest progress has been made on District 5, the works upon which had not previously kept pace with the adjoining districts. Between Madras and Tindivanam, the smaller works are, with a few exceptions, completed, and the whole will be completed in a few weeks. Between Tindivanam and Punrutti there is still much to be done, notably on either side of the Panar river where work has only recently been resumed after a suspension of six months. Between Cuddalore and Tanjore work has been commenced during the quarter on Districts 11, 12, 13 and 14; the report of the current quarter will, I trust, show very substantial progress in these districts.

Large Bridges.—The progress of 121,769 cubic feet is mainly due to brickwork in the cylinders of the foundations. The masonry of the Cooum and Adyar bridges was completed during the quarter. At the Palar good progress has been made with well-sinking, but in no case have the wells yet reached the depth at which it is proposed to stop sinking; a very large quantity of material has been prepared here, and the progress in future will be more apparent as the work rises above the level of the river bed. The cylinder foundations of the Chendur bridge according to the altered design have been commenced. At the Gingee bridge, which is of solid stone masonry, the progress has been rapid. At the Vikravandi river progress has been very slow and confined to well-sinking. It is hoped that solid rock has been reached in several of the wells, and building of the superstructure will shortly be commenced. Good progress has been made with the sinking of cylinders at the Panar bridge. The water has been very low and favorable for

our work. At the Guddelum all the wells, with the exception of those of the south abutment, have been sunk more or less, and some have reached the depth at which I propose sinking should cease. The wells of the Coleroon bridge long delayed, owing to the difficulty of procuring well-curbs, have been commenced during the quarter. The irrigation rivers of the Tanjore delta favored us by becoming dry at an earlier date than usual, and the foundation work of the bridges has been carried on with much vigor during the quarter. At some of these works I deemed it expedient to order that work should be carried on by night as well as by day, so that no effort might be spared to get in the foundations before the floods come down.

Harvesting operations have greatly interfered with progress at all the large bridges; in some cases work had to be entirely suspended owing to the impossibility of keeping up a supply of labor.

Rail laying and Ballasting.—The length of line laid during the quarter is 17 miles 70 chains. A portion of this was in closing the gap between Madras and Tindivanam; a portion in extending the line northwards from Cuddalore; a short piece was laid at Porto Novo, and the remainder is due to progress on Districts 14, 15, 16 and 17, the materials for the three first of which were carted from three stations on the Negapatam-Trichinopoly Section. In ballasting the progress, 1,240,974 cubic feet, is satisfactory. Early in January a ballast train commenced to work from Cuddalore northwards; in February the train which had to be temporarily withdrawn to Tuticorin in September last year was returned to Madras, and in March a second train was transferred from the Southern Extension to the Madras end of the line. At the Tanjore end advantage has been taken of the rivers being dry to collect large quantities of sand from their beds which will be spread by train.

Stations and Buildings.—The progress made under this head is small, as sanction for the stations between Madras and Tindivanam reached me only towards the end of the quarter.

(True Copy.)

NEGAPATAM,
27th April 1876.

(Signed) W. S. BETTS,
Agent.

No. 155.

ORDER THEREON, 11th July 1876, No. 1,744.

RAILWAY, No. 13.

ORDERED that these reports, completed as to columns 3 and 4 of Statement A, be forwarded to the Government of India.

2. The condition of the works on the Northern Extension at the period embraced by these returns has been separately commented* on, and dissatisfaction expressed at the rate of progress which had been attained.

*G.O., No. 1,154, dated 9th May 1876.
" " 1,374, " 2nd June "

3. With these reports is forwarded a statement showing dates of arrival and erection of brake vans, prepared in compliance with G.O., No. 516, dated 25th February 1876. The opinion expressed in those Proceedings as to the unsatisfactory progress made with the vehicles is confirmed by reference to the statement now submitted. The various reports† made to Government on the subject have most forcibly demonstrated the insufficiency of the brake-power available with trains on the metre gauge line. This want, it is observed, is susceptible of remedy to a greater extent than was attempted, for material for the erection of brake vans

† G.O., No. 2,969, dated 16th October 1875.
" " 3,279, " 16th November "
" " 3,280, " 16th "
" " 197, " 25th January 1876.
" " 374, " 11th February "
" " 919, " 7th April "

Proceedings of the Madras Government, Public Works Department,
11th July 1876. No. 1,745.

received from home have been allowed in several cases to lie for months without being put together. The demand for cotton trucks should not have been allowed to delay the completion of the brake vans necessary for the public safety.

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,
Secretary to Government.

No. 156.

DOCKET No. 1,745, dated 11th July 1876.

COPY of the above forwarded to the Government of India.

(True Extract.)

Colonel,
Offg. Under Secy. to Govt., P.W.D.,
for Secretary to Government.

RAILWAY DEPARTMENT.

CONSULTING ENGINEER'S OFFICE,

Madras, 25th May 1876.

No. 257.

From

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

Consulting Engineer for Railways,

To

MAJOR-GENERAL G. W. WALKER, R.E.,

Secretary to Government,

Public Works Department,

Fort Saint George.

SIR,

I have the honour to
enclose herewith statements A, B,
C and D showing the progress made
during the quarter ended 31st March
1876 on the construction works of
the Northern Extension of the
South Indian Railway, together
with a brief descriptive report
by the Chief Engineer.

2. The statements for the
Southern Extension have not yet
come to hand, but shall be sub-
mitted on receipt.

3. As directed in the Order
of Government N:576 of the 25th

February

4025- Feb 2/76 No 516.
 2125- April 1016.
 17 Feb 76 - 439.
 9 May 76 - 1154
 2 June 76 - 1374
 16 Oct 75 - 2969
 16 Nov 75 - 3279 & 80.
 25 Jan 76 - 197
 11 Feb 76 - 374
 22 March 76 - 732
 7 Apr 76 - 919.

P.N. 1876
 No 3810
 Recd 11 July 76-

RAILWAY DEPARTMENT.
 CONSULTING ENGINEER'S OFFICE,
 Madras, 30 May 1876.
 No. 262.
 From
 LIEUT.-COLONEL J. H. M. SHAW-STEWART, R.E.,
 Consulting Engineer for Railways,
 To
 MAJOR-GENERAL G. W. WALKER, R.E.,
 Secretary to Government,
 Public Works Department,
 Fort Saint George.

In continuation of this office No 257, of the 25 instant, I have the honour to enclose herewith statements A, B, and C, showing the progress made during the quarter ended 31st March 1876 on the construction of the Southern Extension of the South Indian Railway.

The money columns are left blank in statement A, as the details of the expenditure have not yet been audited.

I have the honour to be, Sir,
 Your most Obedt Servant,
 J. H. M. Shaw-Stewart
 Cons. Eng. for Railways

W. A.

No 154
 Recd 29.6.76- P.N. 11.7.76
 Cui. 14-6-76
 Despatched 23-5-76.

The money columns are left blank in statement A, as the details of the expenditure have not yet been audited.

Dated 25 May 1876.
 Received 29 May 1876.
 The Consulting Engineer for Railways,
 Fort Saint George.

Ed 21st April 1876 No. 1016.

No 1548 of 20 June 76.
Recorded. —

1876 Sept.
No. 3909

1876 Sept. 1st

~~Ordered to be forwarded
to the Govt of India~~
A.E.

~~Copy of the above for-
warded to the Govt of
India in continuation of
No. dated~~

1548A

Recd. 27.6.76 - Ptd. 11.7.76
Cop. - 15.6.76 Ord. 20.6.76
Recd. 13.6.76
Respt to Govt. 1-6-76.

Statement
Statement A. B. and
C. of the Progress of
the South Indian
Railway for the first
quarter of current year.

S.S. No. 262

Dated 30th May 1876
Received 21st

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

The Consulting Engineer
for Railways.

RAILWAY DEPARTMENT.

RAILWAY DEPARTMENT.

CONSULTING ENGINEER'S OFFICE,

Madras, 21st June 1876.

No. 304

From

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

Consulting Engineer for Railways,

To

MAJOR-GENERAL G. W. WALKER, R.E.,

Secretary to Government,

Public Works Department,

Fort Saint George.

SIR,

In continuation of
letters Nos 257 and 262, dated the 25th
and 30th ultimos respectively, I have the
honour to submit herewith duplicate
copies of statements A of the Progress
Report of the South Indian Railway
for the first quarter of the current
year, with the money columns filled
in.

2.

With reference to the
concluding

concluding portion of paragraph 3 of
letter No 257, it is explained that
the delay in the erection of the
parts of the 8 goods brake vans that
arrived in India on the 17th November
and 24th December 1875 is due to the
great pressure put upon the Locomotive
Superintendent for cotton bolls. It
is stated that they are all in hand,
and will be turned out of the shops
for use very shortly.

I have the honour to be

Sir

Your most Obedt Servt.

W. Matthews Esq. Col. R.E.

Cons: Engineer for Railways

6720-6-76 No 1548 origl

P.W. 1876 Sept
No: 4461

Proc-11 July 1876

Public Works Department.

For C. No: 4754.

Please send as soon
as printed the original
draft order on the Cash
Progres Report of S.I.R.
now in the Press. with
remarks by His Grace
the Governor. R.F.

* No 1548 dated 20 June 1876
on C No 3909, was called for from
the Press and resubmitted
to Ooty with C No 4461 on
the 23rd June.

Please cancel SO No 1548 of
20 June 76 on C No 3909 which is
disposed of with C No 3810 & 4461 in SO No 1744
of 11 July 76.

H.T.D. 8/7

No 1548

Cir. 27.6.76 - P.W. 11.7.76
Desp to 27-6-76.

Submitting
duplicate copies of the
memo to H of the P.W.
Report of the Electric
Railways for the first
quarter of the current year
with the money returned
final line.

E.L.D. No. 3574

Dated 21st
Received 22 } June 1876

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

From
The Consulting Engineer
for Railways,
RAILWAY DEPARTMENT.

G 20-6-76 1528 origl

P.W. 1876

Public Works Department.

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the

Read the following:—

From

The Comr. Engrs. for
Railways

} H.E. No 257 dt 25th May 1876

These reports are not
complete & hence for
forwarding to the Govt. of India.

Ordered that these reports be forwarded to the Govt. of India. The required punctuality in the columns 3 & 4 the submission of the returns has not been attained for the quarter under notice; but it is hoped that arrangements will be made for submission of the statements for the quarter ending 30th June by the 10th of the following month, as requested in G.O. No 1015 dated

These are submitted for submission of the statements for the quarter ending 30th June by the 10th of the following month, as requested in G.O. No 1015 dated

dated

dated 21st April 1876.

The condition of the works on the Northern Extension at the period embraced by these returns has been separately commented on, and dissatisfaction expressed at the rate of progress which had been attained.

With these reports is forwarded a statement showing dates of arrival and erection of brake-vans, prepared in compliance with G.O. N^o 516 dated 25th February 1876. The opinion expressed in these Proceedings as to the unsatisfactory progress made with the vehicles is confirmed by reference

to

* G.O. 1154 - 9th May 1876.
 * 1374 - 2nd June

* G.O. 2969 - 16th Oct. 1875
 " 3279 - 16th Nov. —
 " 3280 - 16th —
 " 197 - 25th Jan. 1876
 " 374 - 11th Feb. —
 " 919 - 7th April —

Comdg. Engr. for Ry.

17
 to the statement now submitted. The various reports made to Govt. on the subject have most forcibly demonstrated the insufficiency of the brake power available with trains on the metre gauge line. This want, it is observed, was susceptible of remedy to a greater extent than was attempted; for materials for the erection of brake-vans received from home have been allowed in several cases to lie for months without being put together.

(H.E. Docket N^o 4)

Copy of the above forwarded

No. 1744

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 11 July/76.

Read the following:—

From

The Comptroller for Ryots (H.C. No. 257 of 25th May 1876)
 do do (do do 262 of 30th do)
 do do (do do 304 of 21st do)

M. 57

M. 11

There seems to be some misunderstanding as to the return A & B - It was found that columns B & C could not be made up until nearly the end of the ensuing quarter - This was represented by J. who took no notice - & therefore it is presumed are content to receive the progress report 3 months late for

Ordered that these reports, completed as to columns 3 & 4 of Statement A, be forwarded to the Govt. of India - The delay in the submission of the returns, commented on in G.O. No. 1415 dated 21st April 1876, has been almost as great during the quarter now under review - In future returns submitted

forwarded to the Govt. of India.

For the Public Works Department.
 Madras.

7 submitted incomplete as
7 to Columns 3 & 4 will
not be accepted after
the 10th of the month
following the quarter to
which they relate.

2. The condition of
the works on the Northern
Extension at the period
embraced by these returns
has been separately com-
mented on, and disatis-
faction expressed at the
rate of progress which
had been attained.

3. With these reports
is forwarded a Statement
showing dates of arrival
and erection of brake-vans,
prepared in compliance
with G.O. No. 516 dated
25th February 1876. The

opinion

the purpose of G.O. No. 516 that is
probably sufficient - not so for
the Local Govt. - it was therefore
decided that AEB should be delivered
not later than 10th of the month
after end of quarter - i.e. March
quarter on 10th April & June q-
on 10 July - but necessarily with
columns 3 & 4 in blank. These

columns are not so important
for Local Govt. as the others which
indicate the actual condition of
works - to be commented upon
at once - the reports in this form are
not received on the 10th inst. for
June quarter - there will be the
time for a review minute by
G.O. 1154 d/9th May 1876
" 1374 - 2^d June -

G.O. 2969 d/16th Oct. 1875
" 3279 - 16th Nov. -
" 3280 - 16th -
" 197 - 25th Jan. 1876
" 374 - 11th Feb. -
" 919 - 7th April -

opinion expressed in those
Proceedings as to the in-
satisfactory progress made
with the vehicles is con-
firmed by reference to
the Statement now sub-
mitted. The various reports
made to Govt. on the subject
have most forcibly demon-
strated the insufficiency
of the brake power avail-
able with trains on the
metre gauge line. This
want, it is observed,
was susceptible of remedy
to a greater extent than
was attempted; for
materials for the erection
of brake vans received
from home have been
allowed in several cases
to lie for months without
being

