(1) பக்கங்களின் எண்ணிக்கை 52

(2) புதுக்கித் திருப்பிய நாள்

(3) ஆதாரங் குறிப்பவர் சுருக்கொப்பம் 1/9/95

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

பொதுப்பணி துறை

அரசாணை எண். 261 W அச்சகம்
மு. கோப்புத் தாள் எண். பலவகை
& 262

நாள் : 30-1-1884 199.

அ. பாண்டு

மடிக்கவோ கூண்டபடி கையாளவோ கூடாது.

ஆவண. கா. 1—18,006—6-9-90.

செப்பனிடுபவர் பெயர் அ. மாணி
செப்பனிடுவதற்காக எடுத்துக் கொள்ளப்பட்ட நாள் ஜூ 2 95
செப்பனிட்டு முடித்த நாள்
சரிபார்க்கும் மு. பா. எ. கையொப்பம்
ஆராய்ச்சி உதவியாளர் கையொப்பம்

30TH JANUARY 1894, No. 261 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

READ—the following papers:—

From S. D. PEARS, Esq., Superintendent of Works, No. I Periyár Division, to the Chief Engineer, Public Works Department, dated Periyár, 20th November 1893, No. 193 C.E.

I have the honour to bring to your notice that the steel wire rope supplied by the India office last January for the main dam ropeway under G.O., No. 3351 W., dated 7th December 1892, has proved so unsatisfactory that I request that the matter may be brought to the notice of the India office and of the makers. The rope in question should have lasted till the completion of the work; as it is, a new one will certainly be necessary, and if it is obtained, as it probably will be, from the same makers, they should, in my opinion, be asked to provide it at a very considerable reduction in price.

2. The rope complained of was shipped from England on the 31st January last, reached Ammayanáyakkanúr in April, and Periyár at the end of June. It was cut into two equal parts, of which one was brought into operation about the 20th July, since which time it has been working daily, except Sundays, holidays and about 7 other idle days, having to pass round ten 8′ pulleys in each circuit. On the 9th November, after a life of only 3 months and 20 days, it had deteriorated to a condition so unsafe that it became necessary to dismantle it and replace it with the other unused half. The three specimens which accompany this letter will show you that it was not rejected too soon. The specimens are the worst flaws in the rope, but along its whole length single wires, and in a good many cases two or three wires at the same point, have parted, the fracture being generally clean and without trace of corrosion. I am inclined to attribute the failure of the rope to the inferior quality of the steel. It will be open to the makers to reply that the rope may have been subjected to corrosive influences in the course of its long journey to Periyár, but for the first part of the journey, by sea and rail, it could hardly have suffered had it been protected by tarred canvas as requested by the Madras Government in their telegram printed with the Government order above quoted, and for the last portion, although it was a long time on the road and was exposed to some bad weather, it nevertheless made a very much better journey than its predecess or, a rope of exactly the samedescription, furnished by, I believe, the same makers, Messrs. Bullivant and Co., which subsequently stood 11 months of actual work, under precisely the same conditions.

3. There is no reason to suppose that the second half of this rope, which is now being put up, will last any longer than the first half has done. It is moreover not long enough for the ultimate positions of the angles, which will have to be adopted at the beginning of next season. I therefore enclose an indent for a new rope of the same length, but of the kind known as Lang's patent lay (made by Messrs. Bullivant and Co.) for the reasons given in my No. 153 C.E., dated 4th October 1893. I beg that no time may be lost in ordering it, so that it may be sure of being at Periyár in time for the commencement of next season.

From the General Superintendent, Public Works Stores, dated 30th Nov. 1893, No. 72 S.

From S. D. PEARS, Esq., Superintendent of Works, No. I Periyár Division, to the Chief Engineer, Public Works Department, dated Periyár, 14th December 1893, No. 226 C.E.

In continuation of my No. 153 C.E., dated 4th October 1893, I have the honour to report that the last two months' working of the ghât wire ropeway has made it quite evident that the lower rope even when its worst pieces have been replaced by the best pieces of the upper rope (about to be rejected) will not last even one season more.

2. I am therefore compelled to submit an indent for a complete new rope for the lower section, and I beg that very early arrangements may be made for procuring it from England, so that it may be put up by the beginning of next season and the necessity avoided of having to stop transport and change ropes during the middle of the season.

3. I have again specified one of Messrs. Bullivant's ropes made on Lang's patent lay.

4. The length of the rope required for the whole ropeway, as calculated in a letter printed with G.O., No. 3004 W., dated 18th November 1890, is 35,930 feet. I indented in October for 17,250 feet and the present indent is for the balance of 18,680 feet. The sag with which the ropeway has hitherto been worked is less than that specified by the makers and would require a total length of rope of not more than 35,000 at most. But as I think the premature failure of the present rope may not improbably be partly attributable to the excess over specified tension, I have thought it better to provide for a deeper sag, giving a length of rope about 5 per cent. in excess of the direct length measured from post to post.

From the Examiner, Public Works Accounts, dated 21st December 1893, No. 2319 D.
" General Superintendent, Public Works Stores, dated 8th Jan. 1894, No. 81 S.
" Examiner, Public Works Accounts, dated 18th January 1894, No. 134 D.
" " " " 22nd " " " 200 D.

ORDER—dated 30th January 1894, No. 261 W., Public Works.

Indent No. 12 has already been forwarded* to the Home Government and indent No. 17 will therefore be modified so as to provide for the balance, 18,680 feet, of steel wire rope required for A. wire tramway. This indent, which will be forwarded for early compliance, also provides for the supply of 5,400 feet of wire rope for the main dam ropeway. Indent No. 15 will be cancelled.

* G.O., No. 3112 W., dated 2nd Dec. 1893.

2. The special attention of the Director-General of Stores will be invited to the remarks in the letter from the Superintendent of Works, No. 193 C.E., dated 20th November 1893, regarding the unsatisfactory quality of wire rope supplied from England in January 1893 for the main dam ropeway.

[Here enter No. 262 W., dated 30th January 1894.]

(True Extract.)

(Signed) J. PENNYCUICK, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintendent of Works, Periyár Project.
" Superintending Engineer, V Circle.
" Examiner, Public Works Accounts.

Exd. C. A. Munisawmy.
Spare Copies

GENERAL.
ACCOUNT.

Govt. of {1894} Madras.

PUBLIC WORKS.

Dated January, 30th.

Recd. *Encl.*

G.O., 30th Jan. 1894, No. 261 W.

JANUARY.

Indent

The — for 18,680 additional feet of steel wire rope required for the A. wire tramway and also for 5,400 feet of wire rope for the main dam ropeway in No. I Division, Periyár Project, ordered to be forwarded to the Home Government for early compliance.

3

PUBLIC WORKS DEPARTMENT.

General,
Account.

Letter—from

Colonel J. PENNYCUICK, R.E.,
Secretary to the Government of Madras,
Public Works Department,

To

The DIRECTOR-GENERAL of STORES,
India Office,
London.

Sir,

In continuation of my letter No. 3113 W., dated 2nd December 1893, I am directed to forward an indent in duplicate for 18,680 additional feet of steel wire rope required for the A. wire tramway and also for 5,400 feet of wire rope for the main dam ropeway in No. I Division, Periyár Project.

2. I am at the same time to invite your special attention to the remarks in letter from the Superintendent of Works, No. I Periyár Division, No. 193 C.E., dated 20th November 1893, embodied in the Proceedings * herewith forwarded regarding the unsatisfactory quality of the wire rope supplied for the main dam ropeway in January 1893 and which failed after less than four months use. The specimens of the rope referred to by the Superintendent of Works will be transmitted to you in the next freight packet for inspection. It will be seen that in this case also it is suggested that the new rope indented for may be of the kind known as "Lang's patent lay."

3. I am to request that the present indent may be treated as very urgent.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. PENNYCUICK, Colonel, R.E.,
Secretary to Govt., P.W.D.

Fort St. George,
30th January 1894.

Exd. C. A. Munisawmy.
Spare Copies

---

* No. 261 W., dated 30th January 1894.

Govt. of {1894} Madras.

PUBLIC WORKS.

Dated January, 30th.

Recd. *Encl.*

30th January 1894, No. 262 W.

JANUARY.

Indent

Forwarding for early compliance an — for 18,680 additional feet of steel wire rope required for the A. wire tramway and also for 5,400 feet of wire rope for the main dam ropeway in No. I Division, Periyár Project, and inviting special attention to the remarks regarding the unsatisfactory quality of the wire rope supplied for the main dam ropeway in 1893.

Certified that the cost of the Indent can be met from the Budget grant of 1894—95

4

Director-General of Stores in England the ______ *day of* ______ 189 .

Names of Articles	Revenues to which Cost is chargeable	Imperial head of account or grant to which Cost is chargeable	Established proportion	How established proportion is calculated	Number or quantity in store on	Number or quantity due now indenting	Number or quantity now indented for	Rate	Value		Remarks state port of landing	Shipped or under provision	Ordered to be provided	Remarks by the Director General of Stores
									Of number or quantity due on previous indents	Of number or quantity now indented for				
						R.	R. feet	£-S-d	£-S-d	£-S-d				
Bullivants Crucible Steel wire rope, Langs patent lay, breaking strain 15 Tons. Required for the A wire tramway supplied by Messrs. Bullivant & Co. 72 Mark Lane, London E.C., in April 1888	Provincial					17	18,680	0-0-4½	323-8-9	350-5-0	Tuticorin			

S. D. Pears
Superintendent of Works
No. I Periyar Division

Periyar
14th December 1893

of Madras

service

ve, by a

quantity

89

P.W.D.

tificate

Received by the Director-General of Stores in England the ______ day of ______ 189

EXAMINED
9 JAN 1894
ACCOUNTS

Enclosure to No 2266 C.S.
14-12-93

586

Accompaniment to Public Works Department Circular No. XV of 1882.

No. ______ 6

Cancelled

DENT ON ENGLAND FOR STORES required for the Public Works Department in the Presidency of Madras for the service of the Indian Government.

I HEREBY certify that the Stores enumerated in this Indent are absolutely required for the service f the Public Works Department ~~for a period of ______ months, and I further certify that I have, by a ersonal inspection of Books and Stores, satisfied myself that they comprise the least possible quantity~~ ecessary for the above period.

Dated this ______ day of ______ 189

at ______.

Signature ______

Rank Secretary to Government, P.W.D.

OTE.—1. In cases in which a personal inspection of Books and Stores cannot be made, the portion of the Certificate relating thereto should be scored through.

2. The Indent should be paged, and the signature attached to the last line of the Indent.

3. The Indent should be submitted in triplicate.

4. The quantities entered in the Indent should invariably be given in English weights and measures.

Received by the Director-General of Stores in England the ______ *day of* ______ 189

	is chargeable.	which cost is chargeable.†		calculated.	———	indents.	fo		ity ow dented for.	
								£ . s	£ . s . d	
Bullivant's Crucible wire rope, Lang's patent lay, tested to stand breaking strain of 20 tons. Required for Rope way - - - - - -	Provincial	〃	〃	〃	〃	〃	5400 feet --	.	140-12-6	Tuticorin.
				Add 10 % for freight				.	14-7-6	
								£	155 - - -	

Periyar, 20th November 1893.

(Signed) S. D. Pears,
Superintendent of Works.
No. I Periyar Division.

N.B.—The red ink columns to be left blank for filling up in England.

---

* Imperial, Provincial, Local, Mysore, or Berar.
† This column should be left blank if the charge is not debitable to the Imperial Revenues.

charge
of the Indent can be met fro
budget grant of Rs 64, 61
1893-94.

Certificate by Supt of

"Certified that the stores enum
in the Indent are absolutely requi
that they cannot be procured o
manufacture or from surplus
other Departments, Railways and Admi

30th November 1893. Genl: Supt. P.

Examiner's Cer

"I certify that funds to meet th
which, it is estimated, will be in
England in connection with th
during 18 have been (wil
provided for in the estimates o
P.W.D. to the extent of £

Instructions.

This Indent is to be filled in
as practicable by the Indenti
officer in the first instance. He
submit it to Government throu
the Superintendent P.W. Stores,
the Examiner who will make
requisite further entries.

Accompaniment to Public Works Department Circular No. XV of 1882.

No. ______

8

dent on England for Stores required for the Public Works Department in the Presidency of Madras for the service of the Indian Government.

I hereby certify that the Stores enumerated in this Indent are absolutely required for the service the Public Works Department for a period of ______ months, and I further certify that I have, by a sonal inspection of Books and Stores, satisfied myself that they comprise the least possible quantity cessary for the above period.

Dated this ______ day of ______ 189

at ______.

Signature ______

Rank Secretary to Government, P.W.D.

te.—1. In cases in which a personal inspection of Books and Stores cannot be made, the portion of the Certificate relating thereto should be scored through.

2. The Indent should be paged, and the signature attached to the last line of the Indent.

3. The Indent should be submitted in triplicate.

The quantities entered in the Indent should invariably be given in English weights and measures.

Received by the Director-General of Stores in England the ______ *day of* ______ 189

	to which cost is chargeable.	or grant to which cost is chargeable.†	proportion.	proportion is calculated.	in store on ____	on previous indents.	in	on previous indents.	Of number or quantity now indented for.	REMARKS.
									£ s d	
Bullivant's Crucible wire rope, Lang's patent lay, tested to stand breaking strain of 20 tons. Required for B rope way	Provincial.	..	..	..	..	..	5400 feet —	•	140-12-6	Tuticorin
				Add 10% for freight &ca					14-7-6	
								£s..	155-,-,-	

9

Periyar, 20th November 1893.

(Signed) J. D. Pears,
Superintendent of Works.
No. I Periyar Division.

B.—The red ink columns to be left blank for filling up in England.

---

* Imperial, Provincial, Local, Mysore, or Berar.
† This column should be left blank if the charge is not debitable to the Imperial Revenues.

~~2~~ 3 Duplic
~~2 3 Dupli~~
~~1048/93~~
~~855/93~~
400/84
86

Certified that the
the Indent can be met from
budget grant of Rs 64,617 7
1893-94.

Certificate by Suptt of P.

"Certified that the stores enum
in the Indent are absolutely req
that they cannot be procured of
manufacture or from surplus stor
Department, Railways and Adminis

L. Sleckham
30th November 1893. Genl: Suptt. P.W

Examiner's Certifi

"I certify that funds to meet the ou
which it is estimated, will be incur
England in connection with this In
during 18 have been (will be) p
for in the estimates of the P.W
to the extent of £

Instructions.

This Indent is to be filled in as
as practicable by the Indenting Offic
in the first instance. He will subm
it to Government through the Supe
-intendent P.W. Stores and the
Examiner who will make the
requisite further entries.

Accompaniment to Public Works Department Circular No. XV of 1882.

No. ______

10

INDENT ON ENGLAND FOR STORES required for the Public Works Department in the Presidency of Madras for the service of the Indian Government.

I HEREBY certify that the Stores enumerated in this Indent are absolutely required for the service of the Public Works Department ~~for a period of ______ months, and I further certify that I have, by a personal inspection of Books and Stores, satisfied myself that they comprise the least possible quantity ecessary for the above period.~~

Dated this ______ day of ______ 189
at ______.

Cancelled

Signature ______

Rank *Secretary to Government, P.W.D.*

TE.—1. In cases in which a personal inspection of Books and Stores cannot be made, the portion of the Certificate relating thereto should be scored through.

2. The Indent should be paged, and the signature attached to the last line of the Indent.

3. The Indent should be submitted in triplicate.

4. The quantities entered in the Indent should invariably be given in English weights and measures.

ved by the Director-General of Stores in England the ______ day of ______ 189

	Revenue* to which cost is chargeable.	of account or grant to which cost is chargeable.†	Established proportion.	How established proportion is calculated.	Number or quantity in store on ____	Number or quantity due on previous indents.	Num- quantity indented for.		y	Of number or quantity now indented for.	
								£.		£ s. d	
Bullivant's Crucible wire rope, Lang's patent lay, tested to stand breaking strain of 20 tons Required for B rope way	Provincial	..	..	..	..	..	5400 feet		..	140-12-6	Tuticorin
				Add 10% for freight &					..	14-7-6	
									l £..	155-..-..	

Periyar, 20th November 1893.

(Signed) S. D. Pears,
Superintendent of Works
No. I Periyar Division.

N.B.—The red ink columns to be left blank for filling up in England.

* Imperial, Provincial, Local, Mysore, or Berar.
† This column should be left blank if the charge is not debitable to the Imperial Revenues.

Enclo:

Recd. 23.12.93.

Certified that the

the Indent can be met from

budget grant of Rs 64,617 f

1893-94.

Certificate by Supdt of P. W

"Certified that the stores enu

in the Indent are absolutely require

that they cannot be procured of

manufacture or from surplus Sto

Department, Railway and Admini

30th November 1893.

Genl: Supdt. P. W

Examiner's Certifi

No. 2319 D

"I certify that funds to meet

which, it is estimated, will be inc

England in connection with this

during 1894-95 ~~have been~~ will

provided for in the estimates

P. W. D to the extent of £." 155.

Madras
21st December
1893

J. S. Sherlock-Hubba
Examiner of P. W. Acco
Ma

5.2 orig

~~10430/93~~

Instructions.

This Indent is to be filled in

far as practicable by the Indentin

Officer in the first instance. He wi

submit it to Government through

the Superintendent P. W. Stores an

the Examiner, who will make th

requisite further entries.

Accompaniment to Public Works Department Circular No. XV of 1882.

No. 12

INDENT FOR STORES required for the Public Works Department in the Province of ________
________ for the service of the Indian Government.

I HEREBY certify that the Stores enumerated in this Indent are absolutely required for the service of the Public Works Department for a period of ______ months, and I further certify that I have, by a personal inspection of Books and Stores, satisfied myself that they comprise that least possible quantity necessary for the above period.

Dated this ________ day of ________ 189__

at ________

Signature Col R. E.

Rank Secretary to Govt P. W.

NOTE.—1. In cases in which a personal inspection of Books and Stores cannot be made, the portion of the Certificate relating thereto should be scored through.

2. The Indent should be paged, and the signature attached to the last line of the Indent.

Received by the Director-General of Stores in England the ________ *day of* ________ 189

13

	Revenues* to which cost is chargeable	of account or grant to which cost is chargeable.†	Established proportion.	How established proportion is calculated.	Number or quantity in store on ____	Number or quantity due on previous indents.	Number quantity indented for.		Of number or quantity now indented for.	
Bullivants Crucible eel wire rope Lang's tent lay, breaking rain 15 tons Required for the A amway supplied by essers Bullivant nd Co 72 Mark ane London E.C. April 1888	Provincial						Rft. 18680 ~~35930~~	£ s 0·0	£·s·d 360·5·– ~~673·13·1~~	Tuticorin ~~The indents Nos 12 & 15 dated 20 & 30 Nov/93 may be cancelled~~
Bullivant's Crucible e rope Lang's patent y, tested to stand aking strain of 20 tons Rope tramway Ditto - Ditto							5400	0·0·6¼	140·12·6	Ditto Ditto
									~~811·5·7~~ 490-17-6 49-1-9 ~~81-14-5~~	
Add 10 per % for Freight a[illegible] Charges										
								£	539-19-3 ~~896·0·0~~	

F.—The red ink columns to be left blank for filling up in England.

* Imperial, Provincial, Local, Mysore, or Berar.

† This column should be left blank if the charge is not debitable to the Imperial Revenues.

1/54
586

Certified that t
of the Indent can be m
the Budget grant of
and Rs 51300 for 1893–
and Budget grant
1894–95

Certificate by Supt.

Certified that t
stores enumerated
Indent are absolut
required, and that t
cannot be procured of
manufacture or from
stores of other Depar
Railways and Admin

L. L. Wickham
General Supdt P. W
8th Jan 1894.

Examiners Certificat

I certify that funds
meet the outlay which
is estimated will be in
in England in connecti
with the Indent

[illegible] the extent of £539–19–5 [illegible]

Instructions

This Indent is to be filled in as far as practicable by the Indenting officer in the first instance. He will submit it to Gov through the Supdt. P. W. Stores and the Examiner who will make the requisite further entries.

[illegible]

No. 11. S.   14   PRESIDENCY P. W. STORES,

Madras, 9th January 1894.

1894
ACCOUNTS

From
L. L. Wickham Esqr.
GENERAL SUPERINTENDENT,
PUBLIC WORKS STORES,

EXAMINER
22 JAN 1894
ACCOUNTS

9|1

To
THE Chief Engineer
P. W. Department
thro' the Examiner of P. W. Accounts
Chepauk

Enclos: Three.
Revised Indent
in triplicate
Chief Engrs No
4390C of 18th Dec 93
on the No 1 R. R. D. letter
No 226C of 14th
Dec 93 for 35930
lbs of Steel wire
Rope for A tramway
" " " 4489C of
23rd Dec 93 for
5400 lbs of "
for B tramway.

Sir

With reference to your Endorsement No $\frac{4390C}{18/12/93}$ and $\frac{4489C}{23/12/93}$ I have the honor to submit a revised Home Indent for 'Bullivants' crucible steel wire rope for A and B rope tramways and request that the indent No 12 of 20th November 93 sent through the Examiner of P. W. A with letter No 69 S of 20th November 1893 and indent No 15 of 30th November 93 received for revision with your endorsement No 4489C of 23rd December 93 may be considered cancelled.

I have the honor to be
Sir
Your most obedient servant
L. L. Wickham
General Superintendent
P. W. Stores
M

Certified that

P. W. CURRENT No. ~~415~~

5.1

586/94

Presidency P. W. Stores.

From

THE GENERAL SUPERINTENDENT,
PUBLIC WORKS STORES,
Madras,

To

The Chief Engineer P. W. D.
thro' the
Examiner of P. W. Account

No. 81 S.

Dated 8th
Despatched 8th January 1894
Received 19th

NO. OF ENCLOSURES. ~~Three~~
7 (2 in Triplic)

Subject.

Submits revised Name
Indent in Triplicate, for Bullivants
…cible Steel Wire Rope for A.
…Rope tramways.

3113W

B.R.

No. 134 dd/15-

To E.W.

Forwarded.

2. Indent No.12 dated 20t
1893 having already been forw
the Home Government, for compli
G.O.No.3113 W.dated 2nd.Decembe
it should it is thought, be now
ed by wire.

3. To enable me to grant th
quired certificate on indent No.
state how much of it is expected
paid during the current official
and how much during the next; and
ther funds to meet the outlay next
will be provided in the Budget Esti
for 1894-95.

No. 193 C.E.

EXAMINER,
18 DEC 1893
P. W. ACCOUNTS

Office of Superintendent of Wo
No. I Periyar Division
Periyar 20th November 189

15

1P.

From

S. D. Sears Esqre
Superintendent of Works
No. I Periyar Division
Periyar

To

The Chief Engineer
Public Works Department
Madras

Enclosures 4.
1 Indent
3 samples of wire sent separately
by Post

Sir,

I have the honor to bring to your notice that the Steel wire rope supplied by the India Office last January for the Main Dam ropeway, under G.O. No 3351 W. dated 7-12-92 ha proved So unsatisfactory that I request that the matter may be brought to the notice of the India Office and of the makers. The rope in question should have lasted till the Completion of the work & as it is a new one will certainly be necessary, and if it is obtained,

a

it probably will be, from the same makers, they should in my opinion be asked to provide it at a very considerable reduction in price.

2. The rope complained of was shipped from England on the 31st January last, reached Ammayanayakanur in April, and Periyar at the end of June. It was cut into two equal parts of which one was brought into operation about the 20th July, since which time it has been working daily, except Sundays, holidays and about 7 other idle days having to pass round ten 8' pulleys on each circuit. On the 9th November, after a life of only 3 months and 20 days, it had deteriorated to a condition so unsafe that it became — necessary to dismantle it, and replace it with the other unused half. The three specimens which accompany this

letter

letter will show you that it was not rejected too soon. The specimens are the worst flaws in the rope, but along its whole length single wires, and in a good many cases 2 or 3 wires at the same point, have parted, the fracture being generally clean and without trace of corrosion. I am inclined to attribute the failure of the rope to the inferior quality of the steel. It will be open to the makers to reply that the rope may have been subjected to corrosive influences in the course of its long journey to Periyar, but for the first part of the journey, by sea and rail, it could hardly have suffered had it been protected by tarred canvas as requested by the Madras Government in their telegram printed with the G.O. above quoted, and for the last portion, although it was a long time on the road,

and

and was exposed to some bad weather, it nevertheless made a very much better journey than its predecessor, a rope of exactly the same description, furnished by, I believe, the same makers Messrs Bullivant & Co, which subsequently stood 11 months of actual work, under precisely the same conditions.

3. There is no reason to suppose that the second half of this rope, which now being put up, will last any nger than the first half has done. It is moreover not long enough for the ultimate positions of the angles, which will have to be adopted at the beginning of next season. I therefore enclose an indent for a

new

17 3 Jan

new rope of the same length, but of the kind known as Lang's patent lay (made by Messrs Bullivant & Co) for the reasons given in my No 153. C.E. dated 4-10-93.

B. 3351 C
16.10.93

I beg that no time may be lost in ordering it, so that it may be sure of being at Periyar in time for the commencement of next season.

I have the honor to be,
Sir,
your most obedient Servant
S. D. Vears
Superintendent of Works
No I Periyar Division

P. W. CURRENT No. 9936

EXAMINER 1 DEC 1893 P. W. ACCOUNTS 9586

EXAMINER 18 DEC 1893 ACCOUNTS

SUPERINTENDING ENGINEER'S OFFICE 28 NOV. 93 No. 873 P. W. D., 5th CIRCLE

From

The Superintendent of Works

No I Periyar Division

Periyar

To

The Chief Engineer

Public Works Department

Madras

No 193 C.2

Enclosures 4.

Dated 20th }
Received 23rd } November 1893

Crucible steel wire rope

Forwards an Indent

for ______ and request

that the same may be

ordered so that it

may be at Periyar at

the Commencement of next sea

No 224
27-11-93

No 3958 C. of 23rd November
1893

Forwarded to the
General Superintendent
P.W. Stores for submission,
through the Examiner,
of an indent in proper
form for the wire rope
now required.

This reference should
be treated as very
urgent.

O V Bodley
Major R.E.
Dy. Chief Engineer P.W.D.

To

The General Superintendent
P. W. Stores
thro' the Supdg. Engineer
5th Circle

Enclosed Indent
No 363 P.W.D.

Forwarded

Supg. Engr. 5th Circle
24/11

EXAMINER 13 DEC 1893 P. W. ACCOUNTS

EXAMINER DEC 1893 P. W. ACCOUNTS

EXAMINER 9 JAN 1894 P. W. ACCOUNTS

EXAMINER 22 JAN 1894 ACCOUNTS

No. 72 S.

PRESIDENCY P. W. STORES,

Madras, 30th November 1893.

From

L. L. Wickham Esqre.

GENERAL SUPERINTENDENT,

PUBLIC WORKS STORES,

To

THE Examiner of

Public Works Accounts

Chepauk.

Sir,

I have the honor to forward for Submission to Government an Indent in triplicate for Bullivant Crucible Wire Rope required from England for the use of No. One Periyar Division.

Enclosures 2.
Indent in Triplicate
Letter in Original

2. The Chief Engineer's endorsement No 3958 C of 23rd November 1893, is herewith returned.

I have the honor to be,
Sir,
Your most obedient Servant

L L Wickham
General Supt. P. W. Stores,

EXAMINER
8 DEC 1893
P. W. ACCO

Presidency P. W. Stores.

From

THE GENERAL SUPERINTENDENT,
PUBLIC WORKS STORES,
Madras,

To

No. ________ S.

Dated ________
Despatched ________ 189
Received ________

24 No. OF ENCLOSURES.

~~6430 f~~

585/5[illegible]
586

Subject.

EXAMINER
22 JAN 1894
ACCOUNTS

EXAMINER
JAN 1894
ACCO

No 2266 E

Office of Superintendent of Works
No I Periyar Division
Periyar 14th December 1893

20

From

S. D. Pears Esqre

Superintendent of Works
No I Periyar Division
Periyar

To

The Chief Engineer
Public Works Department
Madras

Enc: 1

Sir,

In continuation of my No 153 C.E dated 4-10-93, I have the honor to report that the last two months' working of the ghaut wire ropeway has made it quite evident that the lower rope even when the worst pieces have been replaced by the best pieces of the upper rope (about to be rejected) will not last even one season more.

2 I am therefore compelled to submit an indent for a complete new rope for the lower section, and I beg that very early arrangements may be made for procuring it from England, so that it may be put up by the beginning of next season, and the necessity avoided of having to stop transport and change ropes during the middle of the season.

3. I have again specified one of Messrs Bullivant's ropes made

made on Lang's patent lay.

4 The length of the rope required for the whole ropeway as calculated in a letter printed with G.O. No 3004W dated 13-11-90 is 35,930 feet. I indented in October for 17,250 feet and the present indent is for the balance of 18,680 feet.

The sag with which the ropeway has hitherto been worked is less than that specified by the makers, and would require a total length of rope of not more than 35,000 at most. But as I think the premature failure of the present rope may not improbably be partly attributable to the excess over specified tension I have thought it better to provide for a deeper sag, giving a

length

length of rope about 5 per cent in excess of the direct length measured from post to post.

I have the honor to be,
Sir,
Your most obedient Servant

S. D. Pears.
Superintendent of Works
No I Periyar Division

256

P. W. [illegible] No. ~~10721~~

9 JAN 1894
P. W. ACCOUNTS

From

The Superintendent of Works
No. 1 Periyar Divn

To

The Chief Engineer
Public Works Department
Madras

No. 2266 E

Enclosure one

Recd: 18.12.93
Dated 14th December 1893

Indent for steel wire rope for A wire tramway — Submitting an — under the circumstances explained within

No. 3004-54 d/13-11-90
No. 3351 W d/ 7-12-92
" 5289 C - 14-12-92
" 141 W - 20-1-93
" 174-5 W - 25-1-93
" 652-3 W - 10-3-93
" 1816 C - 21-4-93
" 1976 C - 8-5-93
" 2210 C - 1-6-93
" 3112-3 W - 2-12-93
" 4200 C - 7-12-93
" 4331 C - 15-12-93

No 4390 C d/ 18th December 1893

Forwarded to the General Superintendent P.W. Stores for submission of an indent in the usual form.

2. As the indent called for in this office No. 3351 C d/14th October 1893 has not yet been received, a single indent for the total quantity of steel wire rope should be framed.

Col. R.E.
Chief Engineer P.W.D.

The Genl. Supt. P.W. Stores
thro' the Supt. Engineer
5th Circle

No 399 P.W.S.
Forwarded
J. C. [illegible]
Supg Engineer 5th Circle

9 JAN 1894
P. W.

Government of Madras

1893.

P. W. DEPARTMENT.

CURRENT No. ~~10895~~ 5.42
~~510~~/94
586

From

The Examiner of
P. W. accts.

ENCLOS.

No. 2319 D
Dated 21. 12. 93
Received 23. 12. 93

SUBJECT.

Crucible steel wire rope for No: 1 Periyar Dn:

Certifying that funds will be provided for in the estimates of the P.W.D to meet the outlay which will be incurred in England in connection with the indent for ——.

29—1,000—16-8-93.

DISPOSAL.

91

No. 4489 C dated 23rd December 1893

The indent will be returned to the General Superintendent P.W. Stores in view to the additional quantity of steel wire rope referred to in this office endorsement No. 4390 C d/ 18th December 1893 been included.

2. The indent should be resubmitted through the Examiner, in view to his certificate being corrected as regards value.

Major R.E.

Dy. Chief Engineer P.W.D.

A/ No: 261 W d/ 30th January 1894

PUBLIC WORKS DEPARTMENT

PROCEEDINGS OF THE MADRAS GOVERNMENT.

24

READ the following

From the Supt. of Works, Periyar Project } (Lr. No. 193 C.E. d/ 20 Novr. 1893)
6 " General Supt. P. W. Stores (" " 725 d/ 30 Novr. 1893)
" Supt. of Works, P. P. (" " 226 C.E. d/ 14 Decr. 1893)
9 " Examiner P. W. Accts (" " 2319 D d/ 21 Decr. 1893)
12 " General Supt. P. W. Stores (" " 81 S d/ 8 January 1894)
13 " Examiner P. W. Accts (" " 134 D d/ 18 Jany. 1894)
14 " —do— do— (" " 200 D d/ 22 Jany. 94)

+ G.O. No. 3112 W d/ 2-12-93

Indent No. 12 as already been forwarded+ to the Home Government and indent No. 17 will therefore be modified so as to provide for the balance, 18680 feet, of steel wire rope required for A. wire tramway. This indent, which will be forwarded for early compliance, also provides for the supply of 5400 feet of wire rope for the main dam rope way.

W
27 Jan

(40—2,000—11-10-93.

Ind-

Indent No. 15 will be cancelled.

2. The special attention of the Director General of Stores will be invited to the remarks in the letter from the Superintendent of Works No. 193 C.E dated 20 November 1893 regarding the unsatisfactory quality of wire rope supplied from England in January 1893 for the main dam rope way.

Supt. of Works P. Project
S. E. V circle
Exar. P. W. accounts

No. 262 W d/30 January 9
(H E No 7)

To
The Director General
of Stores, India office
London.

Sir,

In continuation of my letter No. 3113 W d/ - December 1893, I am directed to forward an indent in duplicate for 18,680 additional feet of steel wire rope required for the A

DESPATCHED
1 FEB. 94

W
27 Jan

261 W d/30 January '94

16 P

25

wire tramway, and also for 5400 feet of wire rope for the main dam rope-way in No. I Division Periyar Project.

2. I am at the same time to invite your special attention to the remarks in letter from the Supt. of Works No. I Periyar Dn. No. 193 C.E d/ 20 Nov. 1893 embodied in the Proceedings herewith forwarded regarding the unsatisfactory quality of the wire rope supplied for the main dam rope way in January 1893, and which failed after less than four months use. The specimens of the rope referred to by the Supt. of works will be transmitted to you in the next freight packet for inspection. It will be seen that in this case also, it is suggested that the

Despatched
Ask me for these

[illegible]

the new rope indented
for may be of the kind
known as "Lang's patent
lay."

3. I am to request
that the present indent
may be treated as very
urgent.

I have &c

HLS
25.1.94

26/1

5/2/94

DESPATCHED
8 FEB 94

HLg.

Indent for new
rope for [illegible]
[illegible]

Nos: 261-2 wd/30 January '94

B
9/2

Cer

586 – 911

Govt. of 189 . Madras.
PUBLIC WORKS.

31/1

D.C. 31/1

30 Jany 4 261/262 W.

Indent

the — for 18680 additional feet of steel wire rope required for the A wire tramway, and also for 5400 feet of wire rope ~~[illegible]~~, for the main dam ropeway in No I Dn Periyar Project, ordered to be forwarded to the Home Govt. for early compliance

— Do —

Forwarding for early compliance an — for 18680 addl feet of steel wire ** rope required for the A wire tramway, and also for 5400 feet of wire rope for the main dam ropeway in No I Dn Periyar Project, and inviting special attention to the remarks regarding the unsatisfactory quality of the wire rope supplied for the main dam ropeway in 1893