

(1) Number of pages _____
 (2) Date of repair _____
 (3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Work DEPARTMENT.

G.O. No. 1131-32	(Ly)	Press Mis
Dated 4-4-	1877.	

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
4th April 1877. No. 1,132.*

Read the following papers:—

No. 66. Endorsement of the Consulting Engineer for Railways, dated Madras, 22nd March 1877, No. 183.
From R. B. ELWIN, Esq., Agent and Manager of the Madras Railway Company, to Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, dated Madras, 1st March 1877, No. 359.

With reference to the Proceedings of the Committee held in my office yesterday, when authority was given to telegraph to the Board for 9 steam-pumps and 35 hand-pumps, I have the honor to enclose, for the information of Government, a copy of the Locomotive Superintendent's letter* which

* No. 173, 28th February 1877.

was read to the Committee in explanation of the necessity for this measure.

2. I have asked Mr. Trevithick to prepare an estimate and indent with the least possible delay, and they will be forwarded to you in due course for the sanction of Government.

From F. H. TREVITHICK, Esq., Locomotive Superintendent, to R. B. ELWIN, Esq., Agent and Manager of the Madras Railway Company, dated Perambore, 28th February 1877, No. 173.

Appliances for raising Water.

GREAT difficulty is experienced in raising the large quantity of water required for locomotive purposes with certainty and regularity with the appliances now available for the purpose, and I am afraid trains have been recently very often delayed from this cause.

2. The water has generally to be lifted from 30 to 50 feet high; it is mainly done by gangs of coolies with no better machinery than buckets and ropes; and, as the work is very laborious, and great numbers of men are required to do it, it is found almost impossible to keep them steadily at the work. The buckets and ropes are always in a state of chronic dilapidation, and generally so much supervision and repair are required with the present system that I think some more reliable means of raising water should be provided at once at all stations where large quantities of water are regularly taken by the engines.

3. At locomotive stations I propose to put down pumps worked by steam, and at out-stations pumps worked by hand. Four of the locomotive stations are already provided with steam-pumps, and there are several hand-pumps at different parts of the line; but, as already remarked, the bulk of the work is done by coolies with buckets and ropes.

4. Where large quantities of water are used, as at locomotive stations, there can be no question but that it may be raised more economically by steam-power than by manual labor, and at out-stations, except where only small quantities of water are used, I think pumps will prove more economical both in first cost of plant required in repair and in labor than the usual stagings with buckets and ropes.

5. It is certain that some improvement must be undertaken, and that promptly, to meet the continually increasing demand on our already overstrained watering arrangements; and, if my suggestion be approved, I will at once prepare an estimate and an indent on England for the machinery required.

6. In round numbers there will be required 9 steam-pumps, one for each of the following stations, namely:—Salem, Arcunum, Tripetty, Cuddapah, Gooty, Bellary, Raichore, Toongabudra, and one at Bangalore. Madras, Jollarepet, Pothanoor, Beypore, and Bangalore already have steam pumps. 35 to 40 hand-pumps will also be required.

*Proceedings of the Madras Government, Public Works Department,
4th April 1877. No. 1,132.*

From R. B. ELWIN, Esq., Agent and Manager of the Madras Railway Company,
to Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting
Engineer for Railways, dated Madras, 15th March 1877, No. 432.

With reference to your letter of the 13th instant, No. 399, I have the honor to
enclose three copies of an indent on the Board for 9 steam-pumps and 40 hand-
pumps, estimated to cost Rupees 29,360, and I request that you will be so good as to
communicate authority for its transmission to England for compliance.

2. It has been found impracticable to give, by telegraph, a description which
would enable the Directors to comply with the application, but I hope you will enable
me to send forward the indent by this week's mail.

From F. H. TREVITHICK, Esq., Locomotive Superintendent, to R. B. ELWIN, Esq., Agent
and Manager of the Madras Railway Company, dated Perambore, 19th March 1877,
No. 248.

Your No. 1,084, dated 15th instant.

Indent for Pumps.

In this office letter, No. 173, dated 28th February, on this subject, it was stated that 35 to
40 hand-pumps would be required. On further consideration of the matter the latter number
was found to be required, and the indent was prepared accordingly.

No. 464.

THE Consulting Engineer for Railways for information in continuation of
my letter of the 1st instant, No. 359.

MADRAS,

20th March 1877.

(Signed) R. B. ELWIN,

Agent and Manager, Madras Railway Company.

SUBMITTED for transmission to the Government of India.

2. It is requested that the sanction of the Government of India may be
solicited to the expenditure of Rupees 29,360, being the approximate cost of 9 steam-
pumps and 40 hand-pumps.

3. As the stores are urgently required, the Agent has been authorised to
transmit the indent to the Board of Directors for compliance, in anticipation of the
sanction of Government.

(Signed) J. H. M. SHAW-STEWART, Lt.-Col., R.E.,
Consulting Engineer for Railways.

No. 67.

ORDER THEREON, 4th April 1877, No. 1,131.

RAILWAY, No. 15.

HIS GRACE the Governor in Council
approves of the sanction accorded by the
Consulting Engineer for Railways for the

*Proceedings of the Madras Government, Public Works Department,
4th April 1877. No. 1,132.*

transmission of the indent to the Board of Directors for compliance, and directs that
the papers be forwarded to the Government of India for confirmation of the same.

(True Extract.)

(Signed) J. H. M. SHAW-STEWART, Lt.-Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

No. 68.

DOCKET, No. 1,132, dated 4th April 1877.
COPY of the above forwarded to the Government of India.

(True Extract.)

Lieut.-Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd T. D. Ryan.
Spare Copies

Madras Railway
 Coor. Superintendent's Office
 No. 248. Perambore Works 19th March 1877.

To

The Agent and Manager. B
 My dear Sir,
 Your No. 1084 dated 15th instant
Indent for Pumps.

In this Office letter No. 173 dated 28th
 February on this subject it was stated that
 35 to 40 hand pumps would be required.
 On further consideration of the matter the
 latter number was found to be required, and
 the Indent was prepared accordingly.

Yours faithfully
 Per F. H. Trevithick
 Coor. Superintendent

True Copy

[Signature]
 Agent & Manager.

No. 464

The Consulting Engineer for Railways
 for information in continuation of my
 letter of the 1st instant No. 359.

Madras
 20th March 1877.

26 MAR 77
3231

PUBLIC WORKS DEPARTMENT,
Railway Branch.

Consulting Engineer's Office,
Madras, 22nd March 1877.

Letter Nos 359, 432 and 464 dated
1st 15th and 20th March 1877 respectively from
the Agent and Manager, Madras Railway
forwarding for sanction indent No. 300
for 9 steam pumps and 40 hand pumps.

No. 183

SUBMITTED for transmission to the Government of
India.

It is requested that the sanction
of the Government of India may be
solicited to the expenditure of Rs. 29,360
being the approximate cost of 9 steam
pumps and 40 hand pumps.

As the stores are urgently
required the Agent has been authorized
to transmit the indent to the Board of
Directors for compliance, in anticipation
of the sanction of Government.

W. M. Stewart
Secy.
Comm. Eng. for Ry.

From MADRAS RAILWAY.
335
To The Agent and Manager.
The Consulting Engineer
for Railway
Dated 20th March 1877.
Recd. 21st March 1877.
No. 464.
Attesting, J. P. L. L. L.
as to 40 indent of
35 hand pumps
being included for
the 110 cases of 1877

4. 14th April 77 J. B. L. L.

P.W.D.

2611577

3231

No 1131

Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 4 April/77
Read the following

From
The Comptroller: 2
for Rep: 3 (N.E. No. 183 of 22nd March/77)

His Grace the
Governor in Council
approves of the sanction
accorded by the Com:
Auditor General for
Railways for the trans-
mission of the indent
to the Board of Directors
for compliance, and
directs that the papers
be forwarded to the
Government of India
for confirmation of
the same.

C. E. for Rs.
By Mr. Aceto
24th April/77

(N.E.)

4 Returns
sent to Govt of
India -

40 4th April/77 J.B. 66

C/13231

Gobt. of 1877 India.

PUBLIC WORKS.

To *The Comr. Eng. & S. Affs.*

Dated

Issued

Recd.

Encl.

G. O. *15 April* 1877, No. 1131 *11/4*

11/4 Nos. 66-67 *15 April*

Indent for pumps, in Ry.

The sanction accorded by the
Comr. for the transmission
to the Board of Directors for
Compliance, of the —, appended
and the papers forwarded
to the Comr. of India for confir-
mation of the same.

Requesting confirmation
to the sanction accorded by
for the transmission of a
indent for pumps to the
Board of Directors ^{of the Ry.} for com-
pliance

15 J. C. 11/4