

*Proceedings of the Madras Government, Revenue Department,
28th August 1872.*

No. 218. Read the following Endorsement of the Secretary to Government,
Public Works Department, dated 26th August 1872.

Read the following papers:—

From the Acting Superintending Engineer, 1st Division, to the Secretary to Government, Public Works Department, dated Dowlaishweram, 29th July 1872, No. 1,608.

WITH reference to G. O. No. 23, dated 6th December 1871, I have the honour to forward herewith copy of a letter received from the Assistant Engineer in charge No. 3 Range, Ganjam, in which he offers certain suggestions on the subject of seasoning timber.

2. Mr. Lever has had frequent intercourse with the members of the Forest Department; his suggestions therefore ought to be the more prized.

3. I have not been able to gather further information from the other Range Officers who, for the most part, have had no experience in the seasoning of timber.

ENCLOSURE No. 1.

From J. LEVER, Esq., Assistant Engineer in charge No. 3 Range, to the Superintending Engineer, 1st Division, dated Russelcondah, 28th June 1872, No. 54.

I HAVE the honour to acknowledge the receipt of G. O. No. 23, dated 6th December 1871, forwarded with your memorandum No. 1,038, dated 15th instant, and beg to offer my suggestions on the season of such timber as is in use in my Range. Sal, Peyasal, and Seedu timbers in my opinion, before being worked, should be felled and the barks struck off the timbers; and then they should be submerged in water for one year, after which taken out and stacked as per ground-plan and elevation A, until thoroughly dry; they should then be cut up into planks or rafters, etc., and stacked under a shed as per plate B in the memorandum by G. C. Molesworth, Esq., recorded in the G. O. above referred to.

2. There are other kinds of timber, namely, Rosewood, Ebony, Satin-wood, Gambhari, and Kooniary, which may be felled and used for very good furniture. After felling these timbers they should be removed immediately and stacked in a shed and allowed to season slowly by current of air. The bark of these timbers should not be removed till used, as it would cause them to crack if removed. Such timber as would be required for railway sleepers should be stacked as per ground-plan and elevation C under a shed, and should at least remain in stack for ten months before using.

3. In the stacking of square timber, saplings of from two to three inches diameter should be placed between each row of timber to admit of a free current of air as per ground-plan and elevation B. The pieces of timber that go between the square timbers are short billets. In stacking round timbers the longitudinal timbers are all that is necessary, as the round timbers leave a sufficient space for air to pass through. Care should be taken not to allow the timber seasoned in water to float, but keep below water during the time of season.

4. I beg to return the G. O. received with your memorandum above referred to.

From the Superintending Engineer, 4th Division, to the Secretary to Government, Public Works Department, dated Madras, 6th August 1872, No. 1,960.

WITH reference to the orders of Government, Public Works Department, No. 23, dated 6th December 1871, I have the honour to state that I have no

*Proceedings of the Madras Government, Revenue Department,
28th August 1872.*

suggestions to offer on the subject of seasoning timber and planks, as no stock of such article is maintained in this division.

2. All timber used in the division is wrought and put up by the contractors.

From the Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, Fort St. George, dated Madras, 1st July 1872, No. 340.

With reference to the order of Government dated the 6th December 1871,

* From Agent, Madras Railway, No. 451, dated 28th June 1872.

From Agent, Great Southern of India Railway, No. 4,360, dated 30th January 1872.

No. 23, I have the honour to enclose letters* from the Agents of the Madras and the Great Southern of India Railways, communicating the opinions of

the Chief Engineers and Locomotive Superintendents of the respective companies on the subject of seasoning planks and timber generally.

2. It will be seen that the opinions of these gentlemen agree on all main points with those stated in Mr. Molesworth's memorandum; and my own experience leads me to the same conclusions. Perhaps Mr. Molesworth has not insisted sufficiently on the absolute inferiority of timber seasoned by desiccation, or any other artificial process, to timber which has been naturally seasoned. So far as my experience goes the difference in the two results is very great.

ENCLOSURE No. 1

From the Agent and Manager of the Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 28th June 1872, No. 451.

With reference to your office letter No. 759, dated the 8th of December 1871, I have the

* From the Chief Engineer, No. 312, dated 27th June 1872.

Do. the Locomotive Superintendent, No. 421, dated 22nd December 1871.

honour to enclose copies of the reports noted in the margin on the subject of the seasoning of planks and timber generally.

2. I must apologise for the delay that has occurred in this matter, which has been occasioned by the great pressure of work which the Chief Engineer has recently had in his department.

From the Chief Engineer, to the Agent and Manager, Madras Railway Company, dated Madras, 27th June 1872, No. 312.

Seasoning of Timber.

So far as my experience goes I do not think there is any marked difference in the tendency to split between thick planks and thin. It is of the utmost importance that timber should be allowed to season thoroughly in the log before being cut into planks.

2. We have no experience of Deodar in this Presidency, but teak is very extensively used, and good teak is not very liable to split.

3. My experience entirely agrees with Mr. Molesworth's as to "the density of woods having any influence upon the liability to split." All the Australian woods with which I am acquainted are extremely dense, and no woods that I know of split so badly.

4. The season at which trees are felled materially affects the process of seasoning. Deciduous trees should be cut when the sap is down.

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28th August 1872.*

5. I am in favour of natural seasoning whenever time will admit of it. When felled, the logs should be roughly squared, and should be removed from contact with the ground. If possible they should be made to rest on end, but under all circumstances should be so placed that the free circulation of air is ensured. Logs when first cut down should not be too freely exposed to the sun. They will season better, though apparently more slowly, in the shade.

From the Locomotive Superintendent, to the Agent and Manager, Madras Railway Company, dated Perambore Works, 22nd December 1871, No. 421.

With reference to your endorsement on the Acting Consulting Engineer's letter No. 759 of the 8th instant, I have the honour to submit the following remarks.

2. The opinions expressed in the 1st and 2nd paragraphs of Mr. Molesworth's memorandum dated 31st July 1871 are borne out by the results of my experience, and I concur generally in that gentleman's observations.

3. I have had no experience of the "desiccating process," but am of opinion that artificial seasoning of any kind is open to objection.

4. The mode of seasoning logs suggested by Major G. F. Pearson or that advised by Mr. Molesworth are either of them preferable to the ordinary plan of stacking logs of timber horizontally, but there are obvious difficulties attending the carrying out of the modes suggested which would interfere with their general adoption.

5. The practice in these works is to stack logs of timber horizontally packing them up clear of the ground. The logs are usually tolerably well seasoned when taken over from the contractors.

6. The logs are sawn up into the required thickness for beams, planks, panellings, etc., and these are carefully stacked in horizontal layers, so arranged by means of distance pieces, as to allow of the free circulation of air to the timber. The ends of all are thickly besmeared with cow-dung, and where splits have taken place before stacking, holes are drilled at the extreme end of the split to prevent it extending.

ENCLOSURE No. 2.

From the Agent of the Great Southern of India Railway, to the Acting Consulting Engineer for Railways, Madras, dated Negapatam, 30th January 1872, No. 4,360.

YOUR No. 376.

On the subject of the seasoning of planks and timbers generally the Chief Engineer of this Railway writes: "My experience so accords with what is set forth in Mr. Molesworth's memorandum that I need not enter further into the subject than to bear testimony more particularly to what is written in paragraphs 1, 2, and 4. So far from the density of timber being any criterion of its nonliability to split, I have found some of the densest timber split readily, and my experience with regard to Jarrah, a hard and dense wood, is precisely that of Mr. Molesworth. I have found it split more readily than any timber I have come across."

2. Mr. Sheward, the Locomotive Superintendent, writes thus: "I agree, as far as my knowledge goes, with the opinion expressed by Mr. Molesworth. I have no cognizance with timber-felling. I should deprecate artificial seasoning of timber unless absolutely necessary. In this country it is hardly likely to be needful to season timber other than by the natural process. My practical experience goes to prove that the liability of timber to split is governed by the nature of the grain and not by the density of the wood. Johore teak, a comparatively dense grained wood, is a bad wood to split. We had a consignment of sleepers of this timber that showed up badly in this respect. The plan mentioned by Mr. Molesworth for seasoning planking is the one recognized at home by all builders as the most effective, and they invariably stack their planking in this manner. Squared logs are, I find by our experience, less liable to crack than round."

Proceedings of the Madras Government, Revenue Department,
28th August 1872.

TRANSFERRED to the Revenue Department in continuation of the papers
forwarded with endorsement dated 20th March 1872.

(Signed) G. W. WALKER, Colonel, R.E.,
Secy. to Government, P.W.D.

No. 219. ORDER THEREON, 28th August 1872, No. 1,254.

Forests, No. 16.

ORDERED that these reports be
forwarded to the Government of India
in continuation of letter dated 21st
March 1872, No. 490.

(True Extract.)

Signed) W. HUDLESTON.
Secretary to Government.

To the Public Works Department.
,, the Board of Revenue.

SUPERINTENDING ENGINEER'S OFFICE, 1ST DIVISION.

DOWLAISHWARUM,

29th July 1872

No. 1608

From

Sir, Col. J. F. Fisher R.E.
Acting Superintending Engineer

1st Division

To

Colonel G. W. Walker R.E.
Secretary to Government D. P. W.
MADRAS

SIR,

With reference to G.O. No. 123 dated 1st December
1871, I have the honor to forward herewith copy of a letter
received from the Assistant Engineer in Charge No 3
Range, Ganjam in which he offers certain suggestions
in the subject of seasoning timber.

2 Mr. Leuer has had frequent in-
-tercourse with the members of the Forest Department.
His suggestions therefore ought to be the more prized.

3 I have not been able to gather further
information from the other Range Officers, who, for the
most part, have had no experience in the seasoning
of timber.

I have the honor to be
Sir,
Your most obed^t. Servant

J. W. Brattin Esq. for
Acting Sup. Engineer, 1st Div.

10
To
Lieut. Colonel J. F. Tucker R.E.
Superintending Engineer
1st Division

N^o 54

Sir,
I have the honor to acknowledge
of the receipt of G. O. N^o 23 dated 6th December
1891 forwarded with your Memo No. 1028 dated 15th
instant and beg to offer my suggestions on the
season of such timbers as it is in my Range
Sant Pexual and Lidea timbers in my opinion
before being worked should be felled and the bark
struck off the timbers and then they should be
submerged in water for 1 year after which taken
out and stacked as per framed plan and eleva-
tion A until thoroughly dry. They should then be
cut up into planks or rafters &c. and stacked
under a shed as per plate B in the memorandum
by G. C. Molesworth Esq. recorded in the G. O.
above referred to.

2 There are other kinds of timber viz: Rosewood,
Uruy, Sattanwood, Gambhari and Korrinary
which may be felled and used for very good
furniture. After felling these timbers they should
be removed immediately and stacked in a shed
and allowed to season slowly by current of
air. The bark of these timbers should not be
removed till used as it would cause them to
crack if removed. Such timber as would be re-
quired for such as Railway Sleepers should
be stacked as per ground plan and elevation
C. under a shed and should at least remain
in

Recd 6th December 1891 No 23 A

Public Works 1892. No 1608

38-3803

From
The Superintending Engineer,
First Division.

To
The Secretary to Government
Department Public Works
MADRAS

Dated 29th July 1892.
Received 1st August 1892.

NO. 1608

ENCLO. One

Subject.

Forwarded copy of a letter
received from the Assistant Engineer
in charge of No 3 Range Kanniam
on which he offers certain sugges-
tions on the subject of season-
ing timbers.

No 218

Recd 1
2847/72

in stack for 10 months before using.

In the stacking of square timber sap-
lings of from 2 to 3 inches diameter should be
placed between each row of timber to admit of a
free current of air as per ground plan and eleva-
tion **B.** The pieces of timber that go between the
square timbers are short billets. In stacking
round timbers the longitudinal timbers are all
that is necessary as the round timbers leave
a sufficient space for air to pass through.
Care should be taken not to allow the timber
seasoned in water to float, but keep below of water
during the time of season.

I beg to return the G.O. received with
your memo above referred to.

I have the honor to be

Yours most Obedt. Servant

J. J. James Lever

Asst. Engineer in charge
No. 3 Range

No. 3 Range Office
Aniselecondale
28th June 1872

True Copy

W. H. H. Assistant Engineer

for Ag. Supt. of Range 1st H^{rs}



N^o 1960 Sup^{rs} Eng^{rs} Office 4th Division
Madras 6th August 1872.

From

Colonel F. J. Moberly R. E.
Superintending Engineer 4th Division

To
Colonel G. W. Walker R. E.
Secretary to Government P. W. D.

Sir

With reference to the orders of
Government P. W. D. N^o 23 dated 6th December
1871, I have the honor to state that I have
no suggestions to offer on the subject of
seasoning timber and planks, as no stock
of such article is maintained in this
Division.

2. All timber used ~~seasoned~~ in
the Division is wrought and put up
by the Contractors.

I have the honor to be

Sir
Your Most Obedient Servant
F. J. Moberly Col R. E.
Sup^{rs} Eng^{rs} 4th D^o

G. W. Walker

P. N. 3803/72.

Enclosed in a letter
N^o 1808 dated 29th
July 72 from the
Superintending Engineer
to the
Secretary to Govt
P. W. D.

RAILWAY DEPARTMENT.

CONSULTING ENGINEER'S OFFICE.

From ^{No. 349} Lieut Colonel J. M. Shaw Stewart R.E.

To Consulting Engineer for Railways,
Colonel C. W. Walker R.E.

Secretary to Government,
Public Works Department,
Fort Saint George.

SIR,

With reference to the order of Government dated the 6th December 1891, No. 23, I have the honour to enclose letters from the Agents of the Madras and the Great Southern of India Railways, communicating the opinions of the Chief Engineers and Locomotive Superintendents of the respective Companies on the subject of seasoning planks and timber generally.

From Agent Madras R.E.
No. 4519 28 Jan/92.

From Agent G. S. of R.E.
No. 4360 30 Jan/92.

J. M. 1872 Report.

From No. 3810.

The Chief Engineer

to the Division

to the Secretary

to Government

1892.

dated 6-3 August 1912

Recd. 7-3

No. 1960

Informing that the following has no suggestion to offer on the subject of seasoning of planks. as the plank used in the Division.

Rev. 2847/72

No. 1872 349

To the Secretary to the

It will be seen that the opinions of these gentlemen agree, on all main points, with those stated in Mr. Molesworth's Memorandum; and my own experience leads me to the same conclusions. Perhaps Mr. Molesworth has not insisted sufficiently on the absolute inferiority of timber seasoned by desiccation, or any other artificial process, to timber which has been naturally seasoned. So far as my experience goes, the difference in the two results is very great.

Madras
1st July
1852

I have the honour to be,
Sir,
Ours most truly
Wm. Stewart Esq. M.P.
Cons. Eng. for Railways

Ms. A. 12. 5. 10. 1. 1. 1.

Ms. A. 12. 5. 10. 1. 1. 1.

No. 451

MADRAS RAILWAY.

AGENT AND MANAGER'S OFFICE.

Madras, 28 June 1872

From

Robert B. Shwin Esquire
Agent and Manager. of the M. R. Company

To

Lieut. Col. J. H. Shaw Stewart R.E.
Consulting Engineer for Railways.

Sir,

With reference to your Office letter No 757
dated the 8th of December 1871 I have the
honour to enclose copies of the reports
noted in the margin on the subject
of the seasoning of Planks, and Timber
generally.

2. I must apologise for the delay
that has occurred in this matter,
which has been occasioned by the
great pressure of work which the
Chief Engineer has recently had in
his Department.

I have the honour to be,
Sir,

Your most obedient Servant,

Robert B. Shwin
Agent and Manager.

From the Ch. Engineer
No 312 dated 27 June 1872
From the Loco. Supl.
No 421 dated 22
December 1871.

P. O. 1872 Madras

No 3205

RAILWAY DEPARTMENT.

1872.

From

The Consulting Engineer
for Railways,

To

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

Dated 1st July 1872.

Recd.

Encl. 4. No. 340

Received by the
Seasoning of Planks
& Timber

No. 101254 Pas

Received by the
Seasoning of Planks
& Timber

No. 284772

No. 4360

GREAT SOUTHERN OF INDIA RAILWAY.

AGENTS' OFFICE,

NEGAPATAM, 30 January 1872

From

THE AGENT,

Great Southern of India Railway,

To

The Acting Consulting Engineer
for Railways
Madras.

SIR,

Your No. 376

On the subject of the seasoning of planks and timbers generally the Chief Engineer of this Railway writes - "My experience so accords with what is set forth in Mr. Molesworth's Memorandum that I need not enter further into the subject than to bear testimony more particularly to what is written in paras 1, 2 & 4. So far from the density of timber being any criterion of its non-liability to split, I have found some of the densest timber split readily and my experience with regard to Jarrah, a hard and dense wood is precisely that of Mr. Molesworth. I have found it split more readily than any timber I have come across."

W. Sheward, The Locomotive
Superintendent

From

MADRAS RAILWAY.

To

The Agent and Manager.

The Consulting Engineer

for Railways.

Dated 28th June 1872.

Recd.

No. 451

Forwarded Colours of Planks
in the subject of the
seasoning of planks
and timbers generally

P.N. 3205/72.

No.

GREAT SOUTHERN OF INDIA RAILWAY.

AGENT'S OFFICE,

NEGAPATAM,

186

From

THE AGENT,

Great Southern of India Railway,

To

2

SIR,

Superintendent writes thus "I agree as far
"as my knowledge goes, with the opinion
"expressed by Mr. Moleworth - I have no
"cognizance with timber-felling. I should
"deprecate artificial seasoning of timber
"unless absolutely necessary. In this country
"it is hardly likely to be needful to season
"timber other than by the natural process
"My practical experience goes to prove that
"the liability of timber to split is governed
"by the nature of the grain and not by
"the density of the wood. - Johore teak, a
"comparatively dense grained wood is a
"bad wood to split. We had a consignment
"of sleepers of this timber that shewed up
"badly in this respect. The plan mentioned
"by Mr. Moleworth for seasoning ^{plank} timber
"is the one recognized at home by all

No.

GREAT SOUTHERN OF INDIA RAILWAY.

AGENT'S OFFICE,

NEGAPATAM,

186

From

THE AGENT,

Great Southern of India Railway,

To

SIR,

3

builders as the most effective, and they
invariably stack their planking in this
"manner. Squared logs are, I find by
"our experience, less liable to crack
"than round"

I have the honor to be
Sir

Your most obedt servant
Lucianus B. B.
Agent

Under date the 25th August,

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187

Feb 18

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No 2847

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No

No 1254.
Ordered that these reports be forwarded
of record in continuation of letter date
Feb 1872 No 490.

21. P.K. Sept. Dec 4'
14. Board Rev. Sep 72

28 Aug / 72.