M.R.O. 14—13,000—27-9-24.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No.	Press Mis.
Dated	19

Not to be folded or roughly handled

No. 9. Read the following letter from Captain R. H. BEDDOME, Officiating Conservator of Forests, to J. D. SIM, Esq., Secretary to Government, Revenue Department, Fort Saint George, dated Camp Ootacamund, 12th November 1862, No. 265:—

SIR,

1. In reply to paragraph 3 of the Government Order, No. 2,084 of the 25th of September 1862, I have the honor to inform you that I feel certain that the introduction of Saw machinery into the Annamallay forests would never answer.

2. The Teak trees of the Annamallays are of enormous girth, often 15 to 20 feet in circumference, they always have a certain amount of heart-shake in the centre, which radiates off more or less on all sides, our object in these forests is to turn out Dockyard planks,* which are required without any of the natural crack in them, this is most cleverly performed by the skilled Malabar axemen, who by the use of wedges work along the run of the heart-shake and turn out planks, free from any cracks whatever, this cannot be done with the saw. Captain Michael, who worked the Annamallays for the Dockyard previous to the organization of the Forest Department and Major (now General) F. Cotton took a great deal of trouble and expense to introduce the saw into the Annamallay forests in 1859 and 1860, it was a total failure, almost every plank, so turned out was affected with the heart-shake and the Dockyard would only take them at the market price for "rejected planks."

* Though called planks they are 6 to 12 inches in thickness.

3. Malabar Teak is now selling at Bombay at 1 Rupee per cubic foot more than Moulmein Teak, the reason is that Malabar Teak is prepared as above stated, and Moulmein Teak is generally squared up with the heart-shake in the centre.

4. A Saw Mill in the Annamallays therefore could only be used to advantage in sawing up the heads and butts, and this would not pay the expenses of it, as skilled labor would be required, the forest too is only open for the wet months and then the state of the soil off the roads is such that the machine, however portable, could not, I think, be conveyed from place to place.

5. As to erecting a Saw Mill at Ootacamund to be worked by water power, I forward a copy of Major Morgan's Memorandum on the subject. Government will observe that by Major Morgan's estimate, after an outlay of 3,700 Rupees, a monthly expenditure of 120 Rupees is required, it is doubtful whether the work at Ootacamund is sufficient to cover such an expense. There is a Steam Saw Mill of six-horse power at Wellington, I have not been able to learn from the Executive Engineer the original cost, or working charges of this machine, but it requires a skilled machanic. In the event of the Lawrence Asylum being built at Ootacamund Captain Farewell intends moving the Saw Mill into Ootacamund.

6. I would suggest to Government that the Engineer of the District should be called upon for a report as to the feasibility of erecting a Saw Mill at the end of the lake at Ootacamund, and also for a regular estimate of the same; and whether a Mill worked by water power would be preferable to a small Steam Mill, similar to the one in use at Wellington.

7. The Executive Engineer is prepared for all large Government works, such as the Lawrence Asylum, and it is scarcely the province of the Forest Department to saw up timber at Ootacamund for the public, but as there is little chance of its being undertaken by private enterprise and as sawing is so very expensive at Ootacamund, it would certainly be a boon to the public, if a Mill was set up. The Forest Department would also be gainers thereby, as it would create a readier market for the sale of timber, it is for Government to decide whether the undertaking should be in the hands of the Department Public Works or of the Forest Department.

MEMORANDUM ON SAW MILLS.

1. A Saw Mill at Ootacamund is very desirable, the present cost of sawing being more than 50 per cent. on the cost of the wood, or 24 square feet for the Rupee, a 12 feet inch plank, thus costs, 8 Annas, to this add 20 per cent. for the wastage of the saw and it will be seen that the cost of sawing is almost prohibitory.

A Saw Mill required.
Present rate of sawing.

2. A Saw Mill could easily be set up at the end of the lake, I believe the owner of the Mill there would have no objection to rent the building to Government, at a moderate rent on a long lease.

Situation of Saw Mill.

3. By placing a shutter at the escape, sufficient water to work a 10-horse power water wheel for six hours daily, for at least six months in the year, might be obtained, but as fuller information on this point is desirable, calculations of the discharge should be made by the Executive Engineer of the range, who might also be entrusted with the duty of putting up the wheel, which should be of iron, overshot, and of the newest construction, calculated for a 20 feet fall. The saw should be a vertical one, a small circular saw, say 12" diameter might also be worked for cutting up small stuff.

Water supply.

Saw.

4. To provide for the remaining six months of the year, the water power should, be supplemented by one of Peile's horizontal Wind Engines of 3-horse power.

Wind Engine.

5. The charge for sawing at first might be calculated at 50 square feet per Rupee, this would be only half the present rate. Wind and water power should turn out 100 square feet for the Rupee.

Cost of sawing.

6. The rough cost of the apparatus may be taken as follows :—

	RS.	A.	P.
Iron wheel fixing, &c....	600	0	0
Peile's Wind Engine	1,400	0	0
Circular Saw Table and set of Saws...	1,200	0	0
Vertical Saw Frame and one Roller	500	0	0
	3,700	0	0

Cost of Working.

Working charges.

	RS.	A.	P.
1 Head man on Rupees	40	0	0
1 Sharpener of Saws	20	0	0
4 Coolies at 7 Rupees each	28	0	0
Rent of house...	20	0	0
Contingencies	12	0	0
	120	0	0

Work per month 10,000 square feet at 20 Rupees per 1,000=200 Rupees leaving 80 Rupees to pay for water wheels, &c.

The above estimate is only an approximate one, and will no doubt require modification.

OOTACAMUND,
10th November 1862.

(Signed.) H. R. MORGAN, Major,
In charge of Mudumallai Forests.

(True Copy.)

(Signed.) R. H. BEDDOME, Captain,
Offg. Conservator of Forests.

No. 10.

ORDER THEREON, 1st December 1862, No. 2,515.

1. In his annual Forest Report* for 1860-61, (paragraph 9) Major Morgan, late Officiating Conservator, recommended the establishment of a Saw Mill at Ootacamund. Captain Brine, the late Assistant Conservator of the Annamallay Range, also recommended that a Saw Mill "on the American principle" to be worked by water power should be set up in the Annamallay forest, where, he represented, the loss by axeing out planks was very great.

* Dated 24th September 1861, No. 656.

Paragraph 6 of Captain Brine's Report to the Officiating Conservator, dated 3rd June 1861, No. 14

2. The Government in passing orders on the Report pointed out that a proposition of this kind should be separately brought forward, and not incidentally suggested in a mere Progress Report.

G.O. 25th April 1862, No. 894, paragraph 22.

3. The Home Government in acknowledging the Report in question specially noticed this point, and desired the Government to consider the expediency—

Despatch 14th August, No. 31, paragraphs 4 and 5 in G. O. 25th September 1862, No. 2,084.

I. Of introducing "one or two easily moveable Steam Sawing machines for use in those "forests in which there is most difficulty in procuring labor, and where the timber is most "valuable."

II. Of establishing a Saw Mill to be worked by water power at Ootacamund.

4. Captain Beddome, the present Officiating Conservator, was required* to report on these points, and the letter above recorded is that Officer's reply. Captain Beddome is of opinion that owing to the heart-shake in all Malabar Teak, the introduction of the saw however worked, will not answer, and the attempts made to introduce its use in 1859-60, he states, proved "a total failure." Captain Beddome further observes that the saw being useless for "Dockyard planks" could only be used in sawing up the heads and butts, which would not pay. Under these circumstances the Governor in Council is not prepared to sanction the setting up of Steam Saw machinery in the Annamallay forest.

* G. O. 25th September 1862, No. 2,084, paragraph 3.

5. Captain Beddome does not mention any other forest, as suitable for the introduction of Saw machinery, probably because there is none other in which the transactions of Government are sufficiently large for the purpose.

6. As to the proposal to establish a Saw Mill at Ootacamund, Captain Beddome states that one would be a convenience to the public, and he forwards a Memorandum of Major Morgan's on the subject. Major Morgan would set one up at the lower outlet of the lake, to be worked by water power for six months of the year, and for the other six months by a horizontal Wind Engine. The charge for sawing is 1 Rupee per 24 square feet at present. Major Morgan would charge 1 Rupee per 50 square feet, and he estimates the amount of work at 10,000 square feet monthly. The outlay for machinery is put down by him at Rupees 3,700. The working expenses would be :—

	RS.	A.	P.
Establishment, &c., as per particulars in Major Morgan's Memorandum.....	120	0	0
Wear and tear, &c., at 10 per cent.....	30	0	0
Per mensem.....	150	0	0
Returns at 50 square feet for the Rupee....	200	0	0
Monthly profit.....	50	0	0

The estimate is avowedly approximate.

7. It seems to the Governor in Council that, so far as the Forest Department is concerned, there is no need for a sawing machine at Ootacamund. If required any where, it should be in the forest or at the Depôt, so as to save the heavy expense of carriage up the Ghaut, and the wastage. As the Home Government have specially noticed the subject, Captain Beddome will be requested to report explicitly on this proposition, viz., to have a Saw Mill at the Segoor Depôt. He will be able to procure from the Superintendent of the Gun Carriage Manufactory accurate statistics of the cost of setting up, maintaining and working Saw machinery.

8. When the Lawrence Asylum, &c., are commenced there will be a great demand for timber; and it will then be considered in the Public Works Department whether it will be cheaper to use the Steam Saw Machine of that Department now at Wellington, or to set up one to be worked by wind or water or both.

(Signed) J. D. SIM,
Secretary to Government.

Note.

Mark 9.

In his annual Fleet Report for 1860/1, Major Morgan recommended the establishment of a Saw Mill at Ostacamund - Capt Brine, the Asst Conservator of the Annamallay Range also recommended that a Saw Mill "on the American principle" should be erected by native powers should be set up in the Annamallay Forest, where, he represented, the loss by cutting out planks & the tax great.

v. para 6 of Capt Brine's report. page 10 of Pamphlet.

The first limited out that a proposition of this kind should

be separately Brought forward & both incidentally suggested in a mere Progress Report.

The Home Govt in acknowledging the Fresh Reports specially directed their print, and desired the Govt. to consider the expediency of introducing "one or two Easily moveable Steam Sawing Machines for use in those Forests in which there is most difficulty in procuring labor & where the timber is most valuable"

II Of establishing a Saw Mill to be worked by Water

power at Ootacamund.

Capt Beddome the present Conservator has applied to report on these points & the Enclosed is his reply.

Capt Beddome is of opinion that owing to the heavy Shake in all the Malabar Teak, the introduction of the Saw, however worked, will not answer the attempts to do so made in 1859/60 proved "a total failure". Capt Michael the predecessor of the present Conservator has worked it several years Conse-

forates this news.
The saws being widely
for "Dock yard Marks"
could only be used
in sawing at the
heads & butts - which
would not pay -
under these circum-
-stances I conclude
yt. mills must be di-
-sused to let the
Steam Saw Machine.
—
Capt Reddrow does
not mention any
other French, as built
for the intro duction
of said Machinery - I
am not aware of
any other in which
our transactions are
sufficiently large.
As to the Saw Mills
at Ostg Capt Reddrow
states that one Rs

NO
Yes
Yes

NO

Letter refers to Col Mc Leod
for that ... of Informa ...
Yes
Yes

y

5

Is a convenience
to the public & for-
wards a Means of
Capt Mayard
on the Sea Coast -
Capt M: wishd
Let me ask at the
lower outlet of the
Lake, & he worked
by water power for
6 months of the
year & used for the
other six from the
by a horizontal
Wind Engine - The
charge for sawing
is 1 Rs per 24 Square
feet at present - They
Mr: wishd charge
1 Rs for 50 feet and
he estimates the
amount of work
at 10000 S.f. per M.
The outlay for both

Wrou at Rs 3700 for
Machinery - The
Working Expenses will
be

	Rs. a
Establishment &c	120-0
Wear & tear &c @10%	30-0
Per Mensem	150-0
Returns @ 50%	
for 1 Rs	200-0
Monthly profit	50-0

The Estimate is
avowedly approximate
Mate -

It seems to me
that as far as
the Fuel Depot is
concerned there
is no call for a
Sawing Machine
at Otty - If required
any where, it should
be on the Forest - or
at the Depot, so as
to save the heavy

Expense of Carriage
up the Pass & the
Wattage - As Rs
Home first have
Specially directed
the Subject, Cost &
Feasibility might
be detailed Report
explicitly on this
proposition, viz to
have a Saw Mill
at Lepor Depot.

In Case the Saw
Mill Agitation be
are commenced
there will be a great
demand for timber
& the D W R must
then decide whether
it will be cheaper
to take the Steam Saw
Machine they now
have at Pookatallah
or to set up one to

be worked by mill or water or both.

Order specified

L.D.L

Rec'd Dep'd

No 2575

Proceedings of the Madras Government
Under date the 1st December 1862

Read the following
letter from the Officiating
Conservator of Forests:

Reporting on the proposal for the introduction of Saw Machinery into the Vannamalay Forests and at Polacammud -

} Received 12th Nov/62 No 265

dated 2th Sept/62 No 656 -

para 6 of Capts Brine's Report to the Offg Conservator June 1862 No 111

P. In his Annual Forest Report for 1860/61, (para 9) Major Morgan late Officiating Conservator recommended the establishment of a Saw Mill at Polacammud - Captain Brine, the late Assistant Conservator of the Vannamalay Range also recommended that a Saw Mill "on the American principle" be worked by water

Order sent 12 Dec/62

water power should be set up in the Annamalay Forest, where by pre-
-vented the loss by
axing out planks was
very great.

2 The Government in passing orders on the Report pointed out that a proposition of this kind should be separately brought forward, and not incidentally suggested in a mere Progress Report

3 The Home Govern. must be cautious in acknowledging the Report in question especially noticed this point and desired the Govt to consider the expediency

I Of introducing "and using" the newly moveable steam Sawing Machines for use in those Forests in which there is most difficulty in procuring labor, and where

G C 25 April 62 No 894 para 22.

Despatch Home Letter No 31 para 15 in G C 25 Sept 62 No 2054.

G C 25 Sept 62 No 2054 para 3.

where the timber is most valuable"

II Of establishing saw mills to be worked by water power at Coimbatore

Captain Beddome the present officiating Conservator was required to report on these points, and the letter above recorded is that officer's reply- Captain Beddome is of opinion that owing to the heart shake in all Malabar Teak, the introduction of the Saw, however worked, will not answer - and the attempts ~~to introduce its use~~ made to introduce its use ~~to be so made~~ in 1859/60 he states proved a total failure. ~~Captain Michael the present Superintendent of the Annamallay Forests, who has worked it~~ ~~several~~

~~[illegible]~~ Captain
Beddome further observes
that the Saw being reve-
-lers for "Dockyard Planks"
could only be used in
sawing up the Decks and
butts - which would not
pay. Under these circum-
-stances the Governor in
Council respectfully prepares
to sanction the setting
up of Steam Saw Ma-
-chinery in the Annamul-
-lay Forest -

5. Captain Beddome
does not mention any
other Forest as available
for the introduction of
Saw Machinery probably
because there is none other
in which the transaction
of Government Lease suffi-
-ciently large for the purpose -

6 As to the proposed
to establish a Saw Mill
at

9

at Cotacamund, Captain
Beddome states that one
would be a convenience
to the public and he
estimates a Revenue of
Major
~~Captain~~ Morgan on the
subject ~~Captain~~ Morgan
would set one up at the
lower outlet of the lake
to be worked by water
power for six months of
the year, and for the other
six months by a horizontal
wind Engine - The charge
for sawing is 1 Rupee
per 24 square feet of
present - Major Morgan
would charge 1 Rupee
per 50 square feet, and
he estimates the amount
of work at 10,000 square
feet monthly - The
outlay for Machinery
is first known by him
at 1 Rupees 3700 - The
working

working Expences would be

Rs a

Establishment Pcs, as per particulars in Annx or Morgan's Memo	120-0
Wear and tear 10%	30-0
Per Annum	150-0
Returns at 50 Annas Feet for the rupee	200-0
Monthly profit	50-0

The Estimate is avowedly approximate.

It seems to the Governor in Council that so far as the Forest Department is concerned there is no need for a Sawing Machine at Ootacamund. If required any where, it should be in the Forest - or at the Depot so as to save the heavy expence of carriage up the Ghaut - and the advantage the Home Government have specially noticed, the subject, Captain Beddome will be requested to report explicitly

We will be able to procure from the Superintendent of the Lowe Carriage Manufactory accurate & tabulated of the cost of setting up, maintaining and working Saw Machinery -

4 - Off. Comrs of Forests Dept
14 — Board of Revenue
21 — Pub Works Dept - N
7 — Military do —

10

especially on the proposal, viz to have a Saw Mill at the Segoor Depôt

8 When the Convalescent Asylum, Pcs, are commenced there will be a great demand for lumber, and it will then be considered as the Public Works Department whether it will be cheaper to use the Steam Saw Machine of that Depôt or new ask Wellingtons, or to set up one, to be worked by wind or water or bullocks

Copy in w.o Letter to Cus.
5/10 Nov.r/63 No. 119

Pro. No 470-471
25-9-62

Revenue 1862 Separate.
Pro: of Govt for December

No 251.

Pro. of the Madras Govt.
31st December 1862.

Conservator's Report
regarding the introduction of
Cane Machinery at Kotacamund
and the Annamallay forests
with orders thereon.

No 410