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(2) Date of repair 10-12-62

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MADRAS RECORD OFFICE.

Government of Madras.

Public works **DEPARTMENT.**

G.O. No. 2929	Press ~~Mis~~
145-46	
Dated 6-12-1862.	

Not to be folded or roughly handled

[Signature]

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*Proceedings of the Madras Government, Public Works Department,
6th December 1862.*

No. 145. Read the following Proceedings of the Madras Government in the Revenue Department, dated 1st December 1862, No. 2,515:—

Requesting that it may be considered when the Lawrence Asylum, &c., are commenced whether it will be cheaper to use the Steam Saw Machine of the Public Works Department now at Wellington or to set up one to be worked by wind or water or both. } (Vide Revenue Proceedings 1st December 1862, Nos. 9-10.)

No. 146. ORDER THEREON, 6th December 1862, No. 2,929.

Communicated to the Deputy Chief Engineer, Southern Circle, with reference to paragraph 8.

(Signed.) W. I. BIRDWOOD, Colonel, R. E.,
Secretary to Government.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

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

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

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."

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.
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.
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.
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.
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 Mudumalai Forests.

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

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

- * Dated 24th September 1861, No. 656.
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.
 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 Government in acknowledging the Report in question specially noticed this point, and desired the Government to consider the expediency—
- Paragraph 6 of Captain Brine's Report to the Officiating Conservator, dated 3rd June 1861, No. 14.
- G.O. 25th April 1862, No. 894, paragraph 22.
- 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

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

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.

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
	150	0	0
Per mensem.....	200	0	0
Returns at 50 square feet for the Rupee.....	50	0	0
Monthly profit.....			

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 Depot, 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 Depot. 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.

(True Extract.)

J. H. M.
Secretary to Government.

To the Officiating Conservator of Forests.
" Board of Revenue.
" Public Works Department.
" Military do.
Exd. S. T. Ausguatin.

1862 Sept
24th 1862
No 236379

No. of the Atlantic
the Revenue Dept.

Receipts }
Revenue } No 236379

No 236379

29
1862

Communications to the
Chapman & Co. with reference to

Para 8.

H. S.

Chapman }
10/29/62

At New York City Aug 29th 1862
Office with 8 copies of the
Revenue Act Aug 28th

10/29/62

At New York City Aug 29th 1862

Office with 8 copies of the
Revenue Act Aug 28th

Receipts that it may
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1862 Sept 24th

No 145-146.

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