M.R.O. 14—10,000—21-4-22

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 1655	Press ~~Mis.~~
Cel 42	
Dated 4..8. 1862	

Not to be folded or roughly handled.

Proceedings of the Madras Government, Revenue Department, 4th August 1862.

No. 41. Read the following Proceedings of the Board of Revenue, dated 22nd July 1862, No. 4,743:—

Read the following letter from A. HUNTER, Esq., M.D., Superintendent School of Industrial Arts, to C. G. MASTER, Esq., Acting Sub-Secretary to the Board of Revenue, Madras, dated 14th July 1862.

SIR,

1. With reference to the Proceedings of the Board of Revenue, No. 4,188, dated 30th June 1862, accompanied by samples of Flax and Rope made from it, forwarded by Mr. J. Fischer to the Honorable D. Arbuthnott, Collector of Salem, I have the honor to report for the information of the Board of Revenue, that the flax seems to have been of very fair quality, but the treatment to which it was subjected has destroyed its color, and taken from it a good deal of its strength. The plants were said to have been steeped for about twelve days, then washed, and spread out and dried every day for a week.

2. From experiments that I have tried in cleaning fibres of a great number of Indian plants, I feel satisfied, that the steeping and rotting process is not suited to the heat of the climate, as plants putrify rapidly under water in India, and the fermentive process, which goes on for weeks sometimes in a cold climate, is occasionally completed in from twelve to eighteen hours in India, and is immediately succeeded by putrefaction, which discolors and takes the strength from fibres. About ten days ago, I was trying some experiments at Coonoor, in steeping and cleaning the fibres of the Hill Nettle, and I found that after two days' steeping, the plants got much discolored, but had not lost their strength.

3. I would beg to suggest, that if Mr. Fischer could send some of the fresh cut flax to the School of Arts in Madras, it would be cleaned and returned, to show what the quality of the flax is, when quickly prepared. I believe the best method of separating the woydy fibre, and bark (or boon of flax as it is called) is to crush or beat the plant as soon after it is cut as possible, taking care not to double up the stalks or the fibres get entangled like tow; continue the beating for half an hour, and then place in water for a night to remove the sap; beat again, or crush between wooden rollers, then wash out all the sap, squeeze and hang up the bundles in the shade to dry; when thoroughly dry, the bundles may be rolled up in coarse gunny bags or cloth, and well beaten on a board with a wooden mallet. This separates the woody fibre and boon, leaving the flax soft, white, and very pliant. The more the fibre is beaten and knocked about, the finer and softer the flax becomes, and the interposition of the cloth prevents the fibre from being cut by the beating; it should afterwards be combed or hackled.

4. The fibres of a great many Indian plants can be thus prepared, fit for manufacturing purposes, and if the above rules be strictly attended to, the fibres of nearly all plants can be obtained, while strong and often with a silky gloss, and in this condition their market value is much enhanced.

5. I beg to forward to the Board of Revenue, samples of two Indian fibres that are now attracting attention in Europe, viz., the Yercum or Calotropis gigantiœ, and the Urtica Hiterophylla, or Hill Nettle, both of which grow in the vicinity of Salem, the former very abundantly on the plains, the other in the wooded sholahs of the Shevaroy Hills at a considerable altitude. The latter plant would require to be cultivated, but it yields a large per centage of fibre. The roots appear to be perennial, and the plant gives two crops annually, attaining a height of eight feet in favorable localities. I have lately seen it growing plentifully rather low down on the Neilgherry sholahs, and it has been successfully cultivated and cleaned by Mr. McIvor for the London Exhibition. The seeds could probably be easily procured on several of our hill ranges, for further cultivation, and I may mention that a Mr. Sangue, an extensive manufacturer of flax and other textile fabrics, is about to visit India for the purpose of extending if possible the preparation or culture of these fibres for the Home market. Mr. S. also intends to bring out some simple machinery (for cleaning fibres) that is now in the International Exhibition.

6. I would beg respectfully to suggest, that the above named fibres be fowarded to Mr. J. Fischer of Salem, with a copy of this letter, and the accompanying pamphlet, which will show some of the best modes of preparing fibres for manufactures; it also contains illustrations of simple machinery for the purpose and lists of Indian plants yielding fibres.

7. I may mention that I lately saw flax growing wild at an elevation of 5,000 to 6,000 feet at a plateau about eight miles from Coonoor, and that it has been successfully cultivated at a much lower elevation, by Mr. T. Staines, in his Coffee estate near the Burliar Rock in the Coonoor valley. In the adjacent forests, I also saw two species of Hibiscus and some other plants that yield fibres growing very luxuriantly and to a large size. The natives are in the habit of using some of these for cordage and gunny bags, and steps have been taken to procure samples of the plants used by them, for identifying the species. I believe there are several valuable fibrous plants both on the Shevaroys and Neilgherries, and if Mr. Fischer could procure fresh samples of any of them, and transmit them to Madras, experiments would be tried on their qualities, and communicated to the Board of Revenue for the information of the public.

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1. The Board are much obliged to Dr. Hunter for the above valuable letter, copy of which with the samples and pamphlet will be forwarded to Mr. Fischer through the Collector of Salem.

2. Copy will also be submitted for the information of Government, with the Board's Proceedings to which Dr. Hunter replies.

(A true Copy and Extract.)

(Signed) W. HUDLESTON, *Secretary.*

No. 42.

ORDER THEREON, 4th August 1862, No. 1,656.

Ordered that these Proceedings be recorded and laid on the Editor's Table.

(Signed) T. PYCROFT,

Chief Secretary.

No. 4,188.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 30th June 1862.

Read the following letter from the Honorable D. ARBUTHNOTT, Collector of Salem, to W. HUDLESTON, Esq., Secretary to the Board of Revenue, Madras, dated 21st June 1862, No. 144:—

1. With reference to the Proceedings of the Board of Revenue, dated the 21th December last, No. 7,186, forwarding a quantity of Flax seed for experimental cultivation on the slopes of Hill ranges, and requesting the results to be reported, I have the honor to inform you that on the receipt of the seed Mr. Brett addressed the several planters on the Hills offering the seed for experiment.

Major Hunter.
Mr. J. Fischer.
Mr. Causaker.
Mr. R. Mayers.

2. The gentlemen named in the margin have obtained each a small quantity of seed, and Mr. Fischer has just sent a specimen of the fibre produced from the quantity of seed he obtained, with a rope made of the fibre. I send by banghy a small quantity of the specimen fibre and the rope for the Board's inspection, with a copy of Mr. Fischer's letter to me on the subject. I request the Board will obtain for Mr. Fischer Dr. Hunter's opinion on the quality of the fibre.

3. The other gentlemen who received the seed have not yet reported the result.

ENCLOSURE No. 1.

From Mr. J. FISCHER, to the Honorable D. ARBUTHNOTT, Collector of Salem, dated 20th June 1862.

* 25th January 1862.

1. About the beginning of the year* your predecessor sent me "a small "quantity of flax seed for experimental cultivation on the Shevaroys, with a "request that I would make a report after a sufficient time, stating how the seed has answered on "the Hills."

The flax seed was sown in a small piece of rich and well sheltered land, being a portion of the nursery of our Coffee plantation at Mundambady on the Shevaroy Hills. The soil was first well dug to the depth of a foot and a half, and freed from all grass and weeds: the seed was then sown in beds on the 1st February. The young plants sprung up on the 25th idem and they blossomed on the 21st April following. Great care was taken of the plants, and they were always well watered in the dry weather. I uprooted the plants on the 19th May, and sent them down to Salem where they were tied in small bundles and steeped in a vat full of water and pressed down for about 12 days. They were then washed, and spread out and dried every day for a week, by which time they became perfectly dry; they were then beaten and the result is the fibre which I beg to send you herewith in a bag with a piece of rope made from the fibre; the steams of the plant have been rejected. If you will send this sample to Government, or to Dr. Hunter, and will do me the favor to send me their opinion on the quality of the fibre, I shall feel greatly obliged.

(True Copy)

(Signed) D. ARBUTHNOTT, Collector.

Resolved that the foregoing letter and its enclosure together with the specimen fibre and rope transmitted by Mr. Fischer, be forwarded to Dr. Hunter, who will be requested to report his opinion on the quality of the fibre.

(True Copies and Extract.)

(Signed) C. G. MASTER,

Acting Sub-Secretary.

To A. Hunter, Esq., M. D.

Copy to Honorable D. Arbuthnott, Collector of Salem.

Prd. J. Wright.

No. 4,743.

Proceedings of the Board of Revenue, dated 22nd July 1862.

Read the following letter from A. HUNTER, Esq., M. D., Superintendent School of Industrial Arts, to C. G. MASTER, Esq., Acting Sub-Secretary to the Board of Revenue, Madras, dated 14th July 1862:—

1. With reference to the Proceedings of the Board of Revenue, No. 4,188, dated 30th June 1862, accompanied by samples of Flax and Rope made from it, forwarded by Mr. J. Fischer to the Honorable D. Arbuthnott, Collector of Salem, I have the honor to report for the information of the Board of Revenue, that the flax seems to have been of very fair quality, but the treatment to which it was subjected has destroyed its color, and taken from it a good deal of its strength. The plants were said to have been steeped for about 12 days, then washed, and spread out and dried every day for a week.

2. From experiments that I have tried in cleaning fibres of a great number of Indian plants, I feel satisfied, that the steeping and rotting process is not suited to the heat of the climate, as plants putrify rapidly under water in India, and the fermentive process, which goes on for weeks sometimes in a cold climate, is occasionally completed in from 12 to 18 hours in India, and is immediately succeeded by putrefaction, which discolors and takes the strength from fibres. About ten days ago, I was trying some experiments at Coonoor, in steeping and cleaning the fibres of the Hill Nettle, and I found that after two days' steeping, the plants got much discolored, but had not lost their strength.

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Rect. 21st/62

1862. Department.

No.

Proceedings of the Board of Revenue

Dated 30th June 1862.

No. 4,188.

Forwarding to Dr Hunter letter from Collector of Salem and enclosure relative to the experimental Cultivation of Flax on the Shevaroy Hills, with a specimen fibre and rope transmitted by Mr Fischer, and requesting his opinion on the quality of the fibre.

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(A true Copy and Extract.)

Secretary.

To Dr. A. Hunter, M. D., Superintendent School of Industrial Arts.

Copy to J. Fischer, Esq., with samples of fibre, and copy of pamphlet, through the Collector of Salem.

" to A. J. Arbuthnot, Esq., Acting Chief Secretary to Government, with copy of Board's Proceedings, 30th June 1862, No. 4,188.

Exd. J. Wright.

Dated 22nd July 1862.

No. 4,743.

Stating that the Board are much obliged to Dr Hunter for the opinion given on the subject of the fibre and rope transmitted by Mr Fisher of Salem.