

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No.	2021	Press ~~Mis-~~
276-75 Dated	14-12-1870	

Not to be folded or roughly handled

*Proceedings of the Madras Government, Revenue Department,
14th December 1870.*

No. 274. Read the following Proceedings of the Board of Revenue, dated 24th November 1870, No. 6,814:—

Read the following letter from the Officiating Secretary to the Board of Revenue, Lower Provinces, to the Acting Sub-Secretary to the Board of Revenue, dated Fort William, 28th September 1870, No. 870, C.

WITH advertence to your letter, dated 5th instant, I am directed to forward, for the information of your Board, the accompanying copy of a Report No. 4,753, C., dated 31st October 1868, submitted by

Miscellaneous.
V. H. Schalch, Esq.

the Board of Revenue, Lower Provinces, to Government, regarding the several kinds of Rice-hulling machines in use in Bengal.

ENCLOSURE No. 1.

From the Officiating Junior Secretary to the Board of Revenue, Lower Provinces, to the Secretary to the Government of Bengal, Public Works Department, dated Fort William, 31st October 1868, No. 4,753, C.

REFERRING to your memorandum No. 4,628, dated the 13th July last, I am directed to submit, for the information of Government, the report called for on the several descriptions of Rice-hulling machines in use in Bengal.

Miscellaneous.
A. Money, Esq., C.B., and C. H. Campbell, Esq.

2. It appears from the reports received from the several Commissioners that throughout Bengal there are ordinarily two descriptions of machines used for the purpose, both being of a very primitive and unimproved character. They are commonly known, the one as the "Danki" or Pedal beater, and the other as the "Ukli and Samut" or mortar and pestle.

3. The Danki consists of a bar of wood five feet or so long, working on a cross pin running through it at about eighteen inches from one end. The pin rests on two upright pieces of wood buried in the ground; at the opposite end is the peg or pestle which is raised by the pressure of the foot on the end nearest to the fulcrum, and comes down with considerable force on the paddy which is placed in a mortar made of a hollowed stone or block of wood buried in the earth.

4. The "Ukli" or mortar is made out of a solid log of wood by scooping the upper half, and making it to stand on the other half. The Samut or pestle is a heavy log of wood, roundly shaped, from between four to five feet long, shod with iron at one extremity, and is used with one hand perpendicularly by a person standing. Of these two methods, the Danki is generally supposed to be the best, being the quickest and easiest to work at. For a more complete description of these implements, and the manner in which they are worked, I beg to forward copy of a letter addressed by Baboo Soorjee Narain Singh to the Collector of Bhagulpore on the subject, and I also annex a sketch of each of these apparatuses.

5. In the district of Lohardugga, in Chota Nagpore, the Commissioner states that in addition to the two methods already described, there is another method employed in hulling paddy. Advantage is taken of some smooth bit of rock which is found rising above the surface near most villages in these hilly parts. In this rock a small hole about nine inches deep and one foot in diameter is made. The paddy is placed in this and pounded with a stick bound with iron at the end. This stick is held by the person at work and driven with both hands into the hole, those at work using their feet to feed the hole with fresh paddy, and push aside the rice. The hole in the rock is called "Kandi" and the stick "Samut." This as well as the "Bhoor Kandi" which is another method employed in Singbhoom for hulling, appear, however, to be but a modification of the "Ukli and Samut."

6. Lord Ulick Browne, the Commissioner of Chittagong, states that there is a third kind of hulling machine used in Chittagong. It is a very ingenious May apparatus called the "Dolonee," and is said to be in universal use in Arracan. This machine which is described by Captain Levin, consists of two wooden cylinders of about two feet in diameter, the lower one is solid with

*Proceedings of the Madras Government, Revenue Department,
14th December 1870.*

a slight concavity, from the centre of which rises a stem or spindle which passes through a hole in the centre of the upper cylinder. The upper edge of the lower, and the under edge of the upper cylinder are grooved or toothed. The under edge of the upper cylinder has a slight slope inwards and upwards. The grain is poured into the hollow upper cylinder which is made to revolve on the lower one, either by oxen working round in a circle, or by hand power with a crank. The grain tends to pass out between the two grooved edges of the cylinders, and in doing so is rubbed over and through the grooves, thus loosening the husk. It is necessary to mill the grain more than once to free it entirely from husk. Accompanying is a photograph of the machine which was taken by Mr. Rattroy, the Assistant Superintendent of Police.

7. The Collector of Tipperah also alludes to a husking machine which is in the possession of the Postmaster of Comillah, who had it made on the model of a machine used in Akyab. The accompanying is a sketch of the machine with the following description of the mode in which it works. A solid block with a receptacle (A.) of close wicker work at the summit, works to and fro on the base B., both surfaces O. O. O. being ribbed or fluted. The rice is poured into the basket A., passes through the flue in which the pole C. revolves, and issues at O., after being husked in the ribbed surfaces O. O. O. E. F. G. H. I. on the separate segments of the species of crank by which it is worked on the base B. D. represents the rivet fixed on the head of the pole C. T. T. represents the ropes by which the handle I. is attached to the beam W. W. which supports it.

8. The only approved description of Rice Mill in course of erection is that at Port Canning for detailed information, regarding which I beg to refer you to the printed Report of the Directors of that Company for the year ending 30th April 1868.

9. The only record of any other description of Rice hulling-apparatus in the transactions of the Agricultural and Horticultural Society is that of the Burmese Native Mill, which was first brought to notice more than thirty years ago by the late Dr. W. A. Burdett, and being then in common use in Malacca. This Mill, the Secretary to the Society informs the Board, has never been brought into use in Bengal, though a number were imported by the Port Canning Company, but were discarded without trial in favour of the Steam Mill already referred to in the Report of the Directors. A model, however, of this Burmese Mill is still to be seen in the Society's Museum.

SUBMITTED to Government, with reference to their Order, No. 1,256, of the 15th August last.

2. It does not seem likely that any of the machines described are great improvements on those already in use in this Presidency; but the Board would be glad to have models of those alluded to in the 6th, 7th, and 9th paragraphs, and accordingly resolve to request the various authorities concerned to send them.

3. When received Mr. Grainger will be requested to favour the Board with his opinion on them.

No. 275. ORDER THEREON, 14th December 1870, No. 2,021.

Miscellaneous.

ORDERED to be recorded.

(True Extract.)

(Signed) H. WELLESLEY,

Acting Under-Secretary to Government.

To the Board of Revenue.

Ed. F. R. Laidman.

Rev. 1870. *Oyett*
 Board of Revenue,
 MADRAS. *N^o 3748*

PROCEEDINGS, 24TH NOVEMBER 1870, No. 6,814.

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 Encl.
 Received *3*

27th Nov 1870

NOVEMBER.
 No. 6,814:

Rice-hulling Machines—in use in Bengal,—
 Report from Officiating Junior Secretary to
 Board of Revenue, Lower Provinces, on, sub-
 mitted to Government.

42021
Recorded
14 October 1871

Cost of 1870 *3748*

REVENUE.

THE BOARD OF REVENUE.

Noted December 1870

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G. O. 1192 December 1870. No. 2,021.

DECEMBER
 Nos. 274-275.

Rice-hulling machines in use in Bengal.—
 Proceedings Board of Revenue forwarding a Report
 in connection with them recorded.