M.R.O. 14—10,000—21-4-22.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue—DEPARTMENT.

G.O. No. 1911	Press / Mis.
119-120	
Dated 8-9-1862	

Not to be folded or roughly handled

No. 119. Read the following Proceedings of the Board of Revenue, dated 28th July 1862, No. 4,873.

Read the following letters:—

From Lieutenant-Colonel C. A. ORR, Mint Master, to W. HUDLESTON, Esq., Secretary to the Board of Revenue, Madras, dated 15th May 1862, No. 15.

SIR,

1. In reply to your Official Memorandum of the 14th instant, No. 292, I have the honor to inform you that owing to the many failures that have occurred in casting the open platforms and the counterpoise levers of the weighing machines, only fifty-five (forty-five?) of them are completed. Of these thirty-three have been sent to the Salt Kotars, but whether they are all in use or not I cannot say. The other twelve are still in the Mint, and I shall be glad to have your instruction as to their disposal, as the Salt Superintendent has requested that no more might be sent to the Kotars.

2. I take this opportunity to forward a bill, amounting to Rupees 2,310, for the thirty-three machines which have been delivered, and to explain that the cost of each, owing to the difficulties of construction abovementioned, and to more steel being consumed in the manufacture than I anticipated, is Rupees 10 in excess of what I stated in paragraph 3 of my letter of the 7th January last, No. 243, it was likely to be.

From Lieutenant-Colonel C. A. ORR, Mint Master, to W. HUDLESTON, Esq., Secretary to the Board of Revenue, Madras, dated 23rd May 1862, No. 21.

SIR,

1. With reference to the Proceedings of the Board of Revenue, under date the 2nd instant, No. 2,798, communicating for my information a report of the Deputy Collector of Salt on the working of the iron platform weighing machines which have been made at the Mint, and requesting me to report the number of machines already completed, and to suggest remedies for the defects they are alleged to possess, I have the honor to state that forty-five machines are finished, and that as they have been made with all the care that can be bestowed upon them, I cannot think of any thing that can be done to improve them.

2. Two very intelligent maistries, who thoroughly understand the construction of the machines, were sent by me to the Kotars, in consequence of the receipt of the Board's Proceedings, to examine such of the machines as might be pointed out to them as defective. They unfortunately did not meet with Mr. Smith, but they were shown by an Overseer the very same four machines which Mr. Smith enumerates as having been discovered to be inaccurate, and the men inform me that on inspecting those machines they found them perfectly correct, and that they satisfied the Overseer that such was the fact.

3. Every machine having been tested before it left the Mint, and those reported faulty at the Kotars having been found by our workmen in good working order when examined by them, I am inclined to think that the inaccuracy complained of by Mr. Smith resulted from inattention to setting up the machines properly on level ground, or to the neglect of ordinary care in their adjustment. For example, the defect attributed to one was that the lever, when the counterpoise weight was placed at the point indicating the weight on the machine, would remain stationary if either raised or depressed, but the maistries showed that if the set screws to steady the weight in its place were screwed tight, the apparent defect was at once remedied, and the lever became sensitive enough. I specially called Mr. Smith's attention to the use of those set screws in these words, "I beg you will particularly "observe that when the weight is placed to weigh any particular "quantity, say 10 maunds, the set screws to fix it firmly to the lever should be tightened, as "otherwise the weight indicated may not be correct," and it is strange that he should have condemned the machines while neglecting one of the most essential of their adjustments.

Letter dated 4th January 1862, No. 242.

4. Another machine, also one of the four, was pointed out as unserviceable because the lever would not act at all, but it was seen at a glance that when the machine had been re-set up, after its removal from some other spot, the knife edges (or fulcra) on which the lever turns, had

not been placed in their bearings, and were jammed by the sheet iron covers which are fixed over them to protect them from falling Salt. This mistake having been remedied, the machine worked quite satisfactorily.

5. If they are not placed on level ground, or ground made nearly level, the machines cannot act truly, but must necessarily give varying indications according to the angle of the incline on which they may happen to stand. It is not difficult to adjust them sufficiently level for all practical purposes, without the assistance of any instrument, and, as the lever moves through a very small arc, it is very easy to observe when it is in the centre of its motion, or perfectly horizontal, without any index.

6. The machines may not be well suited for weighing salt, especially in small quantities, and the necessity of having to use baskets of variable weight with them must always be a drawback to their efficiency, but Mr. Smith admits that they are preferable to beam scales, and the Board will recollect that this is all I ever asserted they would be; the question, as I understood it, being whether, having determined upon the introduction of the system of weighing into the Salt Department, it were better to make up a number of scales with the beams which happened to be available, or to manufacture far more suitable and convenient platform machines. If there be any doubt of these machines answering, I think it ought at once to be set at rest by subjecting those at the Kotars to a thorough trial in the presence of some member or members of the Board, and I shall be happy to be in attendance if notice be given to me.

7. I do not understand Mr. Smith's complaint of the slowness of weighment by the machines, as I have understood that the experiments made before Mr. Clarke had established exactly the contrary.

From B. CUNLIFFE, Esq., Collector of Madras, to W. HUDLESTON, Esq., Secretary to the Board of Revenue, Madras, dated Sydapet, 18th June 1862, No. 207.

SIR,

1. I have the honor to forward copy of a letter from the Deputy Collector in charge of Salt of yesterday's date, No. 124.

2. If the Board would still wish that the weigh bridge be tried, perhaps they will be good enough to request the Mint Master to set it up.

3. I have it in contemplation to proceed some day to the Kotars, for the purpose of putting the platform machines received from the Mint to a more lengthened test than they received at the Board's trial a few days ago.

4. Let them however work ever so well, I am convinced that measuring into store must be the mode of taking receipts adopted at the Madras Kotar, unless the Railway Company can put down weigh bridges and turn tables, at convenient points on our platform. The first expense would be great, but it would gradually be recovered by a decrease in storage charges; besides which, our sales will be so very large, that these facilities should perhaps be granted without reference to cost.

ENCLOSURE No. 1.

From A. SMITH, Esq., Deputy Collector in charge of Salt, to B. CUNLIFFE, Esq., Collector of Madras, dated 17th June 1862, No. 121.

SIR,

1. In their Proceedings of the 2nd May 1862, No. 2,798, the Board of Revenue desired that the weigh bridge at this Kotar might be tested, in view to its being ascertained whether it was adapted for the receipt of salt into store.

20th May 1862, No. 108.
3rd June 1862, No. 116.

2. Accordingly, on the dates noted in the margin, I applied to the Mint Master for the services of an experienced Mechanic, to repair and set up the weigh bridge, but have not as yet been favored with a reply to my applications.

Proceedings of the Madras Government, Revenue Department,
8th September 1862.

3. Unless the weigh bridge is repaired and set up, it will obviously be impossible for me to subject it to a test. In bringing therefore this circumstance to your notice, I beg to submit for your consideration whether it is worth while to go to the expense of repairing and setting up a machine which, with the exception of weighing a larger quantity of salt at a time, seems to offer no better facilities for conducting the operation than the machines recently made up at the Mint, and reported upon in my letter of the 3rd April 1862, No. 84. The platform of the weigh bridge being 1¼ feet above the ground, the same tedious process must be observed of filling baskets with salt, placing them on the weigh bridge, removing them from it after adjustment of the weight, conveying them to the place of store, and emptying their contents on the ground. This mode of procedure will necessarily involve the employment of a larger number of coolies, and the confusion caused thereby will only retard instead of facilitating the operations.

4. What I would advocate for this Depôt are weigh bridges whose platform will be level with the ground, with lines of rail leading from it to the places of store. All that will then be necessary is to place trucks filled with salt upon the platform, and on the weight being told off, to run them along the line of rail to where it is intended to store the salt. By this mode, cooly labor will be greatly economized, as what would take ten men to carry on their heads could be wheeled off in a truck by one, with the assistance of the rail, and the great confusion inevitable from the concentration of a large number of men on a contracted area would be obviated. I need not enter further on this subject, as I believe Mr. Clarke, Member of the Board of Revenue, has given it his best consideration, and will probably lay before Government a full and detailed report of his views upon it.

5. The point however on which I would now solicit your orders is whether under the circumstances above stated, I am still to test the weigh bridge, as desired by the Board of Revenue; and if so, I beg that you will be good enough, to enable me to carry out their wishes, by taking such steps as may appear to you advisable for having the machine repaired and set up at this Depôt.

(True Copy.)

(Signed) B. CUNLIFFE, *Collector.*

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1. Pending the final decision as to the best appliance for weighing Salt at the Madras *Town* Kotar, the Board request the Collector to retain 11 out of the 33 machines forwarded to him by the Mint Master, and to return the remaining 22 to the abovementioned Officer, as the total number of new scales proposed to be supplied to the Madras District in the Board's Proceedings, No. 3,351, dated 26th June 1861, in lieu of which the machines have been sanctioned, was only 17 as shown in the margin,* out of which however six were for the Madras *Town* Kotar which need not be supplied at present.

* Madras	..	..	6
Chunambat	..	..	2
Cheyur	..	..	2
Paiganur	..	...	0
Covelong	..	..	1
Vadasamanjeri	..	...	0
Chunambukolum	..	...	2
Pungalom	..	...	2
Homes' Garden	..	..	2
			17

2. With reference to the Collector's suggestion in paragraph 2 of his above letter, the Mint Master is requested to have repaired and set up in the most advantageous position as to its future use, the weigh bridge now available at the Madras Town Kotar, submitting however an estimate of the probable cost of doing so for the Board's information and submission to Government if necessary.

3. The number of machines already completed must be, it is presumed, 45 as given in the Mint Master's second letter, and not 55 as appears to be inadvertently stated in his first letter above recorded, and as the Bill forwarded is for only 33 machines, it will be returned to Colonel Orr with the request that a revised Bill for the whole number completed up to date may be furnished.

4. The machines having been found by experiment to cost Rupees 70 instead of Rupees 50 each as originally estimated,* the sum of Rupees 14,860 sanctioned by Government and provided in the Board's Office Budget Estimate for 1862-63 for 294 machines, will suffice for only 212, but the cost of the remaining 82 together with that of an extra 100 (to be kept in reserve as approved by Government in their Order, No. 147, dated 30th January 1862), will be included in the Board's Estimate for 1863-64.

* Board's letter to Government, No. 4,688, dated 29th August 1861.

5. Deducting the 11 machines which the Collector of Madras has been instructed to retain for his District, there will be 34 available for use elsewhere, and these together with 12 more or any less number that may be completed in time, the Mint Master will be requested to have well packed for transmission to Nellore, for which District 46 machines have been allotted in the Board's Proceedings, No. 3,351, dated 26th June 1861.

6. In order that no time may be lost in giving effect to the Order of Government, No. 556, dated 11th March 1861, in respect of the speedy substitution of weighing for measuring in the Salt Department, the Mint Master is requested to give the Board notice of the completion of every 20 machines, so that immediate steps may be taken for their distribution. A Memorandum of instructions for adjusting them might, with advantage, be circulated with them, and if Colonel Orr will be good enough to prepare one, the Board will sanction its being printed.

7. Resolved that a copy of these Proceedings be forwarded to Government for information, with reference to their Order, No. 2,238, Revenue Department, dated 29th November 1861.

(True Copies and Extract.)

(Signed) W. HUDLESTON, *Secretary.*

No. 120. ORDER THEREON, 8th September 1862, No. 1,911.

Ordered to be recorded.

(Signed) P. P. HUTCHINS,

Acting Deputy Secretary to Government.

20th May 1862, No. 108.
3rd June 1862, No. 116.

2. Accordingly, on the dates noted in the margin, I applied to the Mint Master for the services of an experienced Mechanic, to repair and set up the weigh bridge, but have not as yet been favored with a reply to my applications.

3. Unless the weigh bridge is repaired and set up, it will obviously be impossible for me to subject it to a test. In bringing therefore this circumstance to your notice, I beg to submit for your consideration whether it is worth while to go to the expense of repairing and setting up a machine which, with the exception of weighing a larger quantity of salt at a time, seems to offer no better facilities for conducting the operation than the machines recently made up at the Mint, and reported upon in my letter of the 3rd April 1862, No. 84. The platform of the weigh bridge being 1¼ feet above the ground, the same tedious process must be observed of filling baskets with salt, placing them on the weigh bridge, removing them from it after adjustment of the weight, conveying them to the place of store, and emptying their contents on the ground. This mode of procedure will necessarily involve the employment of a larger number of coolies, and the confusion caused thereby will only retard instead of facilitate operations.

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5. The point however on which I would now solicit your orders is whether under the circumstances above stated, I am still to test the weigh bridge as desired by the Board of Revenue; and if so, I beg that you will be good enough, to enable me to carry out their wishes, by taking such steps as may appear to you advisable for having the machine repaired and set up at this Depôt.

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* Board's letter to Government, No. 4,698, dated 29th August 1861.

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(True Copies and Extract.)

Secretary.

To A. J. Arbuthnot, Esq., Acting Chief Secretary to Government.

Copy to Lieut.-Colonel C. A. Orr, Mint Master, with a Bill.
" to B. Cunliffe, Esq., Collector of Madras.
" to E. F. Eliott, Esq., Sub-Collector in charge of Nellore.

Exd. J. Wright.

Rd. 30th January/62 Nos. 290-291.
" 21st Decr./61 " 192-200
" 31st Dec. " " 440-441
" 11th Sept. " " 104-105
" 29th Novr. " " 299-300
" 11th March " " 176-180.

Revenue Department.
Rd. 5th January 1863
No. 2

PROCEEDINGS OF THE BOARD OF REVENUE,

Dated 28th July 1862.
Despatched 30th
Received. 31st

No. 4,873.

Submitting for information Board's Proceedings on the subject of the preparation of Iron platform Salt weighing machines and their distribution to Salt Kotars.

RECORDED.