

Ms 356-2356

*Deville travelling
allowance for Mrs
Oversic Grant*

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Go 537 23-3-71

No. 2,316.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 6th April 1869.

Read the following letter from J. H. BLAIR, Esq., Honorary Secretary, Government Farm, to the Acting Secretary to the Board of Revenue, dated Madras, 19th March 1869, No. 133:—

I DEEM it right to forward to the Board a demi-official letter from the Superintendent, Government Farm, and another from the Mint Master remarking thereon, as the case referred to appears important.

2. The half mercial was made and stamped at the Mint, but was supposed to be wrong as it did not correspond with measures which had always been used at the Farm; it was, therefore, sent to the Sydapet Tahsildar for testing and comparison, and the results are shown in the Superintendent's letter.

3. As it is probable that the erroneous system of testing practised at Sydapet is in force at other Talook Cutcherries, I think it advisable to bring the matter to the Board's notice.

ENCLOSURE No. 1.

From W. R. ROBERTSON, Esq., Superintendent, Government Farm, to the Honorary Secretary, Government Farm, dated 10th March 1869.

I SENT our half mercial and measure to the Tahsildar to be tested. He has just returned them adjusted. He states that the half mercial was between 3 and 4 ollocks too much, and that the measure also contained too much. He has taken $1\frac{1}{2}$ inches off our half mercial. Since they returned I have again tested them and find that even now they will not correspond, the measure filled four times contains nearly 2 ollocks more of grain than the half mercial. I returned them to the official, who stamped and tested them, and requested him to test them with water; he did so, and found the adjusted half mercial only contained 29 ollocks instead of 32. He attempted to clear himself by stating that he was instructed to make the standard measure equal in volume to $43\frac{1}{2}$ pollams of grain, and that he had adjusted our measure in accordance with these instructions. I pointed out to him the absurdity of pretending to adjust measures with such an uncertain standard, scarcely two samples of grain weighing alike, and the impossibility of filling a measure to weigh the same weight each time. On returning home I sent to the bazaar for three different samples of grain. A measure of each of these samples contained—

$43\frac{1}{2}$ pollams.
39 $\frac{1}{2}$ do.
39 $\frac{1}{2}$ do.

2. You will at once see that a measure adjusted by such means will be right or wrong, according to the sample of grain the adjuster selects; but this is not all, the weight of the grain will vary according as it is filled into the measure. I filled a measure to-day three times with the same grain and found the weights as follows—

$43\frac{1}{2}$ pollams.
 $42\frac{1}{2}$ do.
42 do.

3. You would scarcely credit how the mode of filling the measure influences the weight. If water was employed these errors could not arise, the specific gravity of water varies so little; there can be no dodge or error in filling a measure with water. If a standard measure was supplied to each official he could test much more accurately with water than with any grain. The testing measures employed by the official here are very inferior, only one of the half dozen he produced would hold water, the remainder leaked.

4. This error of $3\frac{1}{2}$ ollocks in our half mercial may appear a trifling matter; however, when multiplied by the number of times this measure is used the matter assumes some importance. For every mercial of grain we sell we give 7 ollocks over. Madden states that this half mercial measure has been employed here for upwards of four years. How many Rupees have we lost? Again,

c227 July 7, 1869

our experimental results have been inaccurately determined. Our animals will have consumed about 11 per cent. more grain, and our crops will have yielded 11* per cent. more than has been recorded. The whole matter demands a rigid investigation. We must have accurate measures.

From Colonel J. CARPENDALE, R. E., Mint Master, to the Honorary Secretary, Government Farm, dated Madras Mint, 12th March 1869.

I RETURN Mr. Robertson's note about measures. The mode of testing adopted by the Tahsildar at Sydapet is just as erroneous as it could be, and in some degree accounts for his saying that the mercial made at the Mint was wrong. Measures made in the Mint have their depth and diameter accurately fixed according to what the capacity should be, and are then sent to the Assay Master, who tests them with water, the only true test; and any measure that he stamps may be relied on as right. I am inclined to think though that the Tahsildar at Sydapet has made a much more serious error than testing with grain. In Government Proclamation of 1846 the mercial is said to contain 800 cubic inches. In an Order, dated 28th February 1859, the Government ordered the mercial in the Madras District to be considered 832 inches, and told the Collector he had nothing to do with the Proclamation of 1846. Perhaps the Tahsildar of Sydapet has one of the old mercials, 800 cubic inches.

(True Copies.)

(Signed) J. H. BLAIR,

Honorary Secretary, Government Farm.

FORWARDED to the Collector of Madras for report.

(True Copies and Extract.)

(Signed) A. MACGREGOR,

Acting Secretary.

To the Collector of Madras.

Copy to the Honorary Secretary, Government Farm.

Exd. J. Tulloch.

Measures.—Letter from Honorary Secretary Government Farm, forwarding correspondence, regarding erroneous system of testing, adopted by Tahsildar of Sydapet, in Madras District, forwarded to Collector for report.

APRIL.
No. 2,316.

Received

Encl

PROCEEDINGS 6TH APRIL 1869, No. 2,316.

BOARD of REVENUE,
MADRAS.

Enclosure in the Board of Revenue to the Collector of Madras dated 10 Dec 1869.

No. 7,090.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 10th December 1870.

Read again Board's Proceedings, dated 6th April 1869, No. 2,316.

Read also the following letter from W. T. BLAIR, Esq., Acting Collector of Chingleput, to the Acting Secretary to the Board of Revenue, dated Sydapet, 20th July 1870, No. 284:—

WITH reference to the Board's Proceedings, dated 6th April 1869, No. 2,316, calling for a report on the subject of Mr. Robertson's letter to the Honorary Secretary to the Farm Committee, regarding the method of testing measures in the Sydapet Taluq, I have the honour to submit the following observations—

2. On inquiry I find that what is stated in Mr. Robertson's letter is substantially correct.

3. The Board are doubtless aware that in this district there are two itinerating Stamping Establishments, one for the Principal and the other for the Sub-division. The half mercial and measure referred to by Mr. Robertson were tested and adjusted not by the Tahsildar, but by the Gumasta at the head of the Stamping Establishment of the principal division.

4. This Gumasta is in the possession of two sets of standard measures. With one of these he tests and adjusts the measures brought to be stamped in the Sydapet and Ponnary Taluqs, and with the other those in the Trivellore Taluq. Both these sets of standard measures correspond in capacity, but in Sydapet and Ponnary measures, when tested, are struck, while in Trivellore they are heaped. The Gumasta can give no explanation of this difference in the mode of testing measures, I think that the practice in Trivellore should be assimilated to that in the other two taluqs. The merchants in all three taluqs sell by heaped measure.

5. It is the custom in this district to adjust measures with gram. It is quite true that this mode of adjustment is not accurate, but it is the only mode that can be adopted, as there is hardly a measure in use in the country which does not leak.

6. I enclose a Statement showing the weight of gram contained in the different standard measures in use in the three Taluqs of the principal division, in the Town of Madras, and in a set of standard measures kept in the Huzur Cutchery.

ENCLOSURE No. 1.

Standard Measures in use in Madras.

Madras full Marcal.

Do. half do.	...	...	...	...	...	Viss 3 and Pollams	36½
Do. Measure	...	...	...	...	...	do.	38½
Do. Half do.	...	...	...	...	...	do.	19½
Do. Quarter do.	...	...	...	...	...	do.	9½
Do. Ollock or ½ Measure	...	...	...	...	...	do.	4½
Do. ¼ Ollock	...	...	...	...	...	do.	2½
Do. ⅛ do.	...	...	...	...	...	do.	1½

Standard Measures in use in the Sydapet and Ponnary Taluqs.

Half Marcal	...	...	...	...	...	Viss 4 and Pollams	10
Measure	...	...	...	...	...	do. 1	do. 2½
Half do.	...	...	...	...	...	do.	21½
Quarter do.	...	...	...	...	...	do.	10½
1 Ollock	...	...	...	...	...	do.	5½
½ do.	...	...	...	...	...	do.	2½
¼ do.	...	...	...	...	...	do.	1½

	<i>Measures in use in the Trivellore Taluk.</i>								
Half Marcal		Viss 4 and Pollams	20						
Measure	do. 1	do.	5						
Half do.	do.	22½							
Quarter do.	do.	11½							
Ollock	do.	5½							
¼ do.	do.	2½							
⅓ do.	do.	1½							

2. It contains the report called for by the Orders of Government.

3. The facts as set forth by the Superintendent of the Farm are admitted to be substantially correct, and the Collector encloses a table showing the discordant results obtained by testing with gram a set of standard measures in use in the town of Madras, and three sets in use in three taluqs of his district.

4. It appears from the Collector's letter that as a rule gram only, and not "any kind of grain," (as supposed by the Superintendent of the Government Farm,) is used in the *testing* process throughout the district; and, of all grains, gram is perhaps the best adapted for the purpose.

5. But the Board are clearly of opinion, that even moderately accurate results will never be attained unless measures are tested with water only. The objection pointed out by the Collector that all the measures leak is no doubt deserving of consideration, but it cannot be admitted without a complete sacrifice of the accuracy which stamping is expected to insure. It will be necessary, if testing by water is adopted, to insist on all measures brought to be stamped having the same diameter; for otherwise it will be impossible to estimate the difference between a "heaped" and a "struck" measure. It seems mere waste of time to be testing measures in a way that admits of such serious variations as those described by Mr. Robertson in paragraph 2 of his letter.

6. It is quite evident that the generating stamping establishments have been left too much to their own devices; and it is much to be feared that the results of their labours are anything but satisfactory.

7. The Board consider it absolutely essential that they should be subject to the most careful personal supervision on the part of Divisional Officers.

8. The system of stamping weights and measures which has led to these results was adopted as a kind of compromise, and has now been in force for about ten years. The object is to test the measure by means of a standard, and then stamp it as containing the amount which such measure is locally considered to contain. That the results are seldom scientifically accurate is no doubt true, but it is not easy to devise a plan by which all the measures in the country could be scientifically tested without great expense; and at the same time there can be no doubt that considerable good has been done by the mere exclusion of weights (such as stones and rough pieces of iron) and measures altogether arbitrary. It is open to the public at any rate to insist upon the use of a stamped measure *professing* to contain a specified quantity, and any considerable error in such a measure must be the result of fraud.

9. As a first step however to the introduction of the uniform system of weights and measures that has lately been sanctioned by the Legislature the Board would take this opportunity of urging

10. They would further suggest as a means of rendering them familiar to the public that all Price Lists and Returns should be given in terms of standard weights and measures. The continued use in this Presidency alone of the term *garce* makes a comparison of prices in the different provinces of India almost a hopeless undertaking, and the use of the various local measures in the Settlement Reports is equally indefensible.

11. With regard to the *diversity* of usage prevailing in Sydapet and Ponnary on the one hand and Trivellore on the other, in *testing measures*, viz., that of *striking* them in the former and of *heaping* them in the latter, it certainly seems unaccountable when it is found that in *all three taluqs* the merchants sell by *heaped* measure only. The Collector should make further inquiries and report again on this point stating who is responsible for so grave an error.

12. The Acting Collector is further requested to send his standard measures to be tested by the General Superintendent Public Workshops and Stores.

(True Copies and Extract.)

For *J. G. Gole*
Acting Sub-Secretary.

To the Secretary to Government, Revenue Department:

with Board's Proceedings, No. 2,316 of 1869.

.. the Acting Collector of Chingleput.

Copy to the Honorary Secretary, Government Farm.

to the General Superintendent of Public Works Stores and Workshops.

Exd. G. A. Turton.

Measures of capacity—used in Sydapet Taluq, Chingleput District.—Letter from Collector submitting remarks with reference to complaints made by Superintendent of Government Farm of incorrectness of, and erroneous method of testing them pursued by Taluq authorities, submitted for orders of Government.—Collector requested to report regarding diversity of usage prevailing in certain Taluqs in testing Measures.

Heerdey.

My dear Mr. Ellis, will
you kindly read the
enclosed letter for Mr. he
goes. I know nothing of
the place he applies the Sec
for but he is no doubt
well adapted for it
I suppose he could
hold it with the
Belie me
your very truly Napoleon

has been authoritatively declared
by the sub: pt. that I have seen
a table in some of our newspapers
but

are required to define by Notification in the Official Gazette the limits of Sub-districts for the purposes

Ching lepu a new law. —
mitting remarks with reference to complaint
made by Superintendent of Government Farm
of incorrectness of, and erroneous method of
testing them pursued by Taluk authorities, sub-
mitted for orders of Government. — Collector
requested to report regarding diversity of usage
prevailing in certain Taluqs in testing Measures.

15
11
The Act as passed defines the
units of height & capacity ^{& length} by
reference to French standards
the equivalents of which are not
given. The Bill defined the
Lier or unit of Weight to be
54. 2. 20462125. and the See
or Unit of Capacity to be
0.2202443 of a British Gallon
that of height & solidity to be a
metre — 39.37079 British inches

I do not know whether this
has been authoritatively declared
by the Govt. though I have seen
a table in some of our newspapers

are required to define by
Notification in the official
Gazette the limits of sub-
districts for the purposes

prevailing in certain things in testing measures.

But I think he may safely
assume the ^{whole} to be correct.

Our scale of heights
should I fancy be something
as follows

- 2204.62125 = 1000 Seer = 1 Ton
- 220.46212 = 100 Seer
- 110.23106 = 50 Seer = 1 Cwt
- ~~55.11553 = 25 = 1/2 Cwt~~
- ~~27.55776 =~~
- 22.04621 = 10 Seer
- ~~2.2046 = Seer = 2 lbs~~
- 1.1023 = 1/2 Seer = 1/2 lb
- .5511 = 1/4 Seer = 1/4 lb
- .2756 = 1/8 " = 203
- .1378 = 1/16 " = 103
- .0689 = 1/32 " = 51

The above would run to the weight

soon early.

I think he should in
the first place restrict ourselves
to the Dept. & railways - leaving
Municipalities & the Public alone
for the present - and ask them
what it ^{will} cost & how long
it will take to alter their
present being let to do as to
comes for them in the new
heights - to provide for it in

mainly in the case of
a store of them in reserve. He
might ask the B.M. what it
will cost to manufacture such.
The West. Port would deal in the
Salt Car tons &c. the Car filling

are required to define by
Notification in the Official
Gazette the limits of sub-
districts for the purposes

of

mitted for orders of Government. - Collector
requested to report regarding diversity of usage
prevailing in certain taluqs in testing Measures.

Imp: under deal in the Rail
way - the Commission at with
Military purchases & stores.
L to m.

I would have nothing to
do with the Measure of Area.
The Law of State has, I am
sure, for hidden this.

L. D. S.

W. A.

The project which appears to me a very
costly operation one. I would refer to the
Govt. of India that in my opinion, the
unreliable for that there is no desire
in which it might be introduced.
I am in fact very much to assist
the execution of a scheme which has
originated with the Revenue Department.

to which nature says they must
impose the system of India
land, or of France, and the
disturbance in all included.

of the Sub-division
which does not
with the Govt. of India
is as much as an

The Sub: for the
"Districts": the Local
for the "Sub-Districts":
I do not understand
the process in ten days.

Sub: for the share
of the business or more in
the matter. L. D. S.

15
Memorandum on the
Indian Weights and Measures
Act.

With reference to
section 6 of this Act, it
is thought that it will
be necessary for the local
Government to furnish
the Supreme Government
with information as to the
particular Districts in this
Presidency in which the
new weights and measures
may be introduced.

Under section 6
Clause 2 the local Govts.
are required to define by
Notification in the official
Gazette the limits of sub-
districts for the purposes

of

of the Act. This can only be done after the Government of India have published a Notification defining the limits of districts for the purposes of the Act.

In view to the Supreme Government taking action upon Section 7, it appears necessary that the local

that Government should scales of weights and measures, based on the units of the metrical system, should be provided for the districts in this Presidency.

Information as to the particular Government departments, Municipalities, and Railway Companies

17
on which the use of the new weights and measures may be made obligatory, should also be communicated to the Government of India, in order to their issuing the Notification contemplated by Section 9.

According to the Statement of Objects and Reasons published with the Bill which has now become law, the use of the new weights and measures may be made obligatory on Government departments, Municipal offices and Railway Companies, when the Government is satisfied that proper standards are made available for the use of these departments,

offices and companies. Of course it will be an essential preliminary that the new weights and measures shall be provided for use before any of them are introduced.

With reference to section 10, it is observed that the general obligatory use of the new weights and measures in any locality can only be required when the Government has been satisfied, after a public local enquiry, that the introduction of the new weights and measures is expedient. It will necessarily be an essential point in such an enquiry to ascertain that the locality is furnished with

17
with the means of providing the new weights to all persons who will be compelled to use them, and it will therefore be obligatory on the Government to see that a sufficient supply of the new weights and measures is available for sale before the issue of the notification referred to in section 10.

Section 12 provides for the appointment of wardens to carry out the duties connected with the verification and inspection of the weights and measures. Under section 18 the powers and duties conferred and imposed by the Act on a Warden may be exercised and performed by any other officer

legal enactments. The
volumes of the English
Statutes will be looked
over; and any Acts relating
to Weights and Measures
which may be traced will
be submitted.

The Indian
Weights &
Measures Act
1823

Recd. V. P. L.

C. L.

P. S. It is conceived that
the word "districts" as used
in section 6 means the Chief
Provinces, or the Presidencies,
in British India; and
that the word "sub-districts"
as used in section 7, is
intended to denote the
regular Districts, Zillahs,
or towns in each district
or provincial.

The notification
required under section 19,
as to the date from which
the penal sections of the
Act (sections 20, 21, 22 and 24)
are to come into force,
should, it is thought,
be issued simultaneously
with the Notification required
by section 9, as regards any
Govt. office, Municipality

or Railway Company; and
simultaneously with the
Notification, under section 10,
as regards the general
community in any "district"
or "sub-district," the limits
of which may be defined
under sections 6 and 7.

It may be said that
section 19 provides only for
the ^{issue} ~~word~~ of the Notification
than referred to, in respect
of any "district or sub-district,"
and that, therefore, no such
Notification is necessary as
regards any Govt. Office,
Municipality or Railway
Company. But it will be
observed that the penal
clauses apply to the cases
of Government Offices, Muni-
cipalities and Railway
Companies, under section 9,
as

as well as to the cases of
"districts" and "sub-districts"
under section 10. There seems
no doubt, therefore, that the
Notification must be issued
in respect to Government Offices
&c., as well as in respect
to districts and subdistricts,
and that the omission of
the words "Government Office
Municipal body or Railway
Company" from the Notification
is the result of an oversight.

The English Statutes
relating to Weights and
Measures are -

35 Geo. 3. Cap. 102

37 Geo. 3. Cap. 143

55 Geo. 3. Cap. 43

5 Geo. 4. Cap. 74

6 Geo. 4. Cap. 12

4 & 5 Wm. 4. Cap. 63

18 & 19 Vic. Caps. 72.

The Volumes containing
these Statutes are herewith
submitted. —

L.C.F.

3972

Ref. sent to Mem. 20.

to the Secy. of the Revenue Dept.

for the purpose of the Board of Revenue

to the Secy. of the Revenue Dept.

for the purpose of the Board of Revenue

Revenue Department.

No. 537-

PROCEEDINGS of the MADRAS GOVERNMENT.
Under date the 23rd March 1871.

Read the following letter

of the Board of Revenue

Subj: Letter from Collector offering remarks with reference to complaint made by Supdt. of Govt. Farm of incorrectness of measures of capacity used in Sydapet Taluk, (Munro's Taluk).

M. E. 10 Decr. 1870, No. 7090

M. A. N.
L. O. S.

The Govt. are not at present disposed to take any steps towards the introduction into this Presidency of Act VI of 1870, but they are prepared to consider favorably any proposals which

which the Board may
make with a view to
prohibiting the use of
purely local or inconve-
nient denominations
of measures in Price
Lists and Returns, or for
improvements in the system
of testing weights and
measures which the Board
are not competent to intro-
duce themselves.

J. B.

14 Foster Street Dec 24

3012

J. H.
Invention of
Mansons of Capital
used in Capital
Tubing, Chicago
District

Do

357-59

Feb. 11, 1877