M.R.O. 14—13,000—27-9-24.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 1574 Press ~~Mis.~~

283 . 284

Dated 27 — 8 — ~~19~~ 1863

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 27th August 1863.

No. 283. Read the following Proceedings of the Board of Revenue, dated 20th August 1863:—

Read the following letter from N. R. POGSON, Esq., Government Astronomer, to W. HUDLESTON, Esq., Secretary to the Board of Revenue, dated Madras, 17th August 1863.

SIR,

1. I have the honor to address you in reference to the Proceedings of the Board of Revenue, dated 1st August 1863, No. 4,387, and also to return the eight rain gauges sent therewith.

2. As regards the one described as "CROSSLEY'S PATENT," which however is merely a good plain standard gauge by Murray and Heath of London and not "CROSSLEY'S PATENT," after accurately measuring its circular aperture and weighing out the proper quantity of water in Troy. Grains corresponding to a fall of half an inch, it exactly filled the glass measure to the highest graduated mark. It may therefore be guaranteed as correct.

Before being issued for use it should, however, be legibly and permanently marked, as without such distinguishing stamp it is sure to get confused with other similar gauges not yet tested, and my examination of it thereby rendered useless. Being the second of its kind tested here it should have M. 2 painted in white in three places, viz., on the bottom of the gauge, on the underside of the funnel (inside the gauge) and upon the glass measure tested with it. If you approve of the simple mark proposed you will oblige me by having it painted on in the places indicated, and by authorizing me to mark any future ones sent here for examination, after testing before they are returned to your Office.

3. The seven gauges of Mr. Bayley's pattern are all too bad for issue. They are all so much too small that the rain registers recorded would be from three to six per cent. in error from that cause alone. The spout or nose is also most objectionable. A sample gauge sent up some time back and now in constant use here had nothing of the kind, and from the great risk there is of the cover not being properly fitted on and so the opening of the spout receiving rain as well as the funnel, I cannot too strongly condemn Bayley's gauges with so mischievous and needless an addition. The pattern supplied as abovenamed, pours well enough with care or if preferred a small jug or chatty may be used when measuring.

The most important consideration of all is undoubtedly the circular aperture of the funnel. A difference of only one-sixteenth of an inch in diameter will cause a corresponding error of $2\frac{3}{4}$ per cent. in the rain-fall recorded. The body of the gauge may in all cases be made cheaply and by an ordinary tin worker, but the top MUST be turned accurately. Mr. Doderet of the Department Public Works could easily and rapidly effect this improvement; but without its being made I could not in all probability pass more than (if so many as) one per thousand which might be sent me for trial.

4. It will save me much time and trouble if all gauges sent for examination are delivered unpacked, *i. e.*, clean and without any paper or covering around them, and that they may be sent for back not less than seven days after delivery here. It would be best to forward me a number, say, five of Murray and Heath's and twenty of Bayley's to compare at leisure, and for it to be an understood point that one of the former and five of the latter shall always be ready for delivery with or without previous notice on any Saturday morning they may be called for. It is however quite useless to send me any more like those now returned. The spouts must be removed and the funnels turned out to 4·697 inches by Mr. Doderet before it can be expected that a single one can be passed as fit for use.

5. Captain R. H. Beddome, Officiating Conservator of Forests, now at Ootacamund, has applied to me for three rain gauges as directed in G. O. No. 1,293 of the 14th July 1863. Of course I have none on hand to supply, but if you will forward three such as you consider suitable I will test them and either pass or return them without delay. If you think proper to let



Secretary to Government
of Revenue Department

Proceedings of the Madras Government, Revenue Department, 27th August 1863.

Captain Beddome have gauges of Murray and Heath's pattern they will require numbering when passed; but being generally pretty correct are less likely to be returned than any others you can supply.

6. It may be as well to remark by way of caution that "CROSLEY'S PATENT" gauges are worse than none in inexperienced hands. When properly fixed up and adjusted they are pretty good though not so trustworthy as an ordinary gauge; but they require such careful and accurate adjustment, firm mounting and frequent examination that they are quite unfit for general use.

Ordered to be submitted to Government with the Board's recommendation that the duty of supplying rain guages be made over altogether to the Government Astronomer, he being authorized to maintain a sufficient stock of trustworthy instruments and to issue them on payment on indents passed by such Heads of Departments as the Government may determine. The instruments could be imported or manufactured as the case might be, under Mr. Pogson's instructions, either through the Department Public Works, the Arsenal or the Mint as Government may think best. The present system is most unsatisfactory, the instruments supplied by the Department Public Works to the Board to meet indents from the Districts being rejected by Mr. Pogson as worse than useless.

No. 231. ORDER THEREON, 27th August 1863, No. 1,574.

Referred to the Public Department where the proposal of the Board of Revenue to make over the duty of supplying rain gauges to the Government Astronomer will receive consideration.

(True Extract.)

(Signed) C. G. MASTER,
Deputy Secretary to Government.

To the Public Department.
„ Board of Revenue.

Exd. S. T. Augustin.

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(A true copy & Extract)

D. Smith Esqre
Secretary to Government

14th July 63 Nos 285-286

Rev = 1863 Vol 15
Proc.s of Govt for August
No. 1965.

Proceedings of the Board of
Revenue

dated 20th

Despd 28 } August 1863
Recd 2nd.

No
1574 - 27th Augt.

With an order
submitting letter
from the Govt Astro-
nomer returning
with his remarks
8 Rain Gauges forward-
ed to him for being
tested & recommending
that the duty of supply-
ing rain gauges be hand-
over altogether to that
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From 13th to 15th Sanny 1/3 Cir 71

Nos 283 & 284.

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From Lt Genl
27th Augt 1863

CC (W)

14/8/63

5 Public Department - Dated 28th Augt
to Board of Revenue