

- (1) பக்கங்களின் எண்ணிக்கை 12
 (2) புதுக்கித் திருப்பிய நாள் செப்டம்பர் 8/9
 (3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம் 6/9

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

சபாநாயகித் துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	1715 (வ)	அச்சகம் பலவகை
நாள் :	20-6-1890	193 .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

6 செப்டம்பர்

20TH JUNE 1890, No. 1715 W., PUBLIC WORKS.

1715
1

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

General.
Account.

READ—the following paper :—

From A. A. JOPP, Esq., Director-General of Stores, to the Joint Secretary to the Government of Madras, Public Works Department, dated India Office, Whitehall, S.W., 22nd May 1890, No. S. 5018.

With reference to your letter of 24th March 1890, No. 955 W., relative to the return to this country of certain thermometers on account of the columns being broken, I have to observe that the thermometers are found to be all in good condition and perfect order. It is therefore thought that the principle on which they are constructed may not have been fully understood.

2. I annex descriptions, which will explain the reason why the column is broken.
3. The thermometers have been returned to Madras per steamship *Manora*, sailed 9th May 1890.

ENCLOSURES.

Casella's Maximum Thermometer for registering the extreme of heat and showing present temperature.

An air speck is here made to separate a small portion of the mercury, which serves as an index that is found so sensitive and steady in use as to be now applied in the most delicate thermometric investigations.

Directions.—Set the index, or detached piece of mercury, by holding the instrument in a vertical position with the bulb end downwards, and with a gentle swing or two of the hand, bring the index within a degree or so of the mercury, at which point it shows the present temperature.

An increase of heat raises the index to whatever point the heat may attain, where it remains till re-set. The indication is taken from the end of the index furthest from the bulb, and the instrument is used in a horizontal position.

147, HOLBORN BARS, LONDON, E.C.

Casella's Minimum Thermometer for registering the extreme of cold and showing present temperature.

Directions.—Suspend it horizontally, with the bulb half an inch lower than the opposite end. To set the index raise the bulb end until the index flows to its place, viz., to the extreme edge of the spirit. Place the thermometer as before, and as the temperature decreases the spirit will recede, taking the index back with it; but on an increase of temperature the spirit will advance, leaving the index to mark the extreme of cold, which it does at the end furthest from the bulb, whilst the spirit itself indicates the temperature at the time.

If in transit the spirit becomes separated, or the index shaken out, it is easily united by a brisk swing or two of the arm, holding the bulb downwards. When thus put right, let the thermometer hang vertically for ten minutes or so with the bulb down to allow the spirit to settle.

L. CASSELLA, 147, HOLBORN BARS, LONDON, E.C.

ORDER—dated 20th June 1890, No. 1715 W., Public Works.

Communicated to the Superintending Engineer, V Circle, with reference to G.O., No. 3190 W., dated 8th November 1889; also to other officers of the department for information and guidance.

(True Extract.)

Captain, R.E.,
Under-Secy. to Govt., P.W.D.

To the Superintending Engineer, V Circle.
To other Superintending Engineers.
To the Chief Engineer, Periyar Project.
„ Chief Engineer for Irrigation.

Exd. J. Moses,
Spare Copies

1715
2

GENERAL.
ACCOUNT.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated June, 20th.

Recd.

Encl.

G.O., 20th June 1890, No. 1715 W.

JUNE.

Thermometers

Communicating letter from the Director-General of Stores returning the — sent for repairs, and stating that they are in good condition and perfect order and forwarding descriptions for using them.

CASELLA'S MINIMUM THERMOMETER.

For registering the extreme of Cold, and showing present temperature.

2-18-90

DIRECTIONS.—Suspend it horizontally, with the bulb half an inch lower than the opposite end. To set the index raise the bulb and until the index flows to its place, viz., to the extreme edge of the spirit. Place the thermometer as before and as the temperature decreases the spirit will recede, taking the index back with it; but on an increase of temperature the spirit will advance, leaving the index to mark the extreme of cold, which it does at the end furthest from the bulb, whilst the spirit itself indicates the temperature at the time.

If in transit the spirit becomes separated, or the index shaken out, it is easily united by a brisk swing or two of the arm, holding the bulb downwards. When thus put right, let the thermometer hang vertically for ten minutes or so with the bulb down to allow the spirit to settle.

L. CASELLA, 147, HOLBORN BARS, LONDON, E.C.

No. 171

*1715
13*

2/22/00
2/23
2/24

Print

CASELLA'S MAXIMUM THERMOMETER.

For registering the extreme of heat and showing present temperature.
An air speck is here made to separate a small portion of the mercury, which serves as an index that is found so sensitive and steady in use as to be now applied in the most delicate thermometric investigations.

DIRECTIONS.

Set the index, or detached piece of mercury, by holding the instrument in a vertical position with the bulb end downwards, and with a gentle swing or two of the hand, bring the index within a degree or so of the mercury, at which point it shows the present temperature.

An increase of heat raises the index to whatever point the heat may attain, where it remains till re-set. The indication is taken from the end of the index furthest from the bulb, and the instrument is used in a horizontal position.

147, HOLBORN BARS, LONDON, E.C.

No. 171.

1715

It is requested that in any further communication on this subject the under-mentioned letter and number may be quoted, and the reply addressed to
The Under Secretary of State for India,
India Office,
Whitehall,
S.W.

S. 5018.

*Printed and
2 copies*
India Office,

Whitehall, S.W.

22nd May, 1890.

Sir,

1715
50

With reference to your letter of 24th March, 1890, No. 935 W. relative to the return to this country of certain thermometers on account of the column being broken, I have to observe that the thermometers are found to be all in good condition and perfect order. It is therefore thought that the principle on which they are constructed may not have been fully understood.

I annex descriptions, which will explain the reason why the column is broken.

The thermometers have been returned to Madras per Steam Ship "Manora", sailed 9th May, 1890.

I have the honour to be, Sir,

Your obedient Servant,

A. A. Joseph

Director General of Stores.

The Joint Secretary to Government,

Public Works Department,

Madras.

T.W. (No. 5556)

En 2

Recd 4-11-90
13-6-90

By. Am 9 58 W 3-26-90
3190 W 3-11-90
26/20 W 24-10-90
Deposited 10
20/2 W 3-24-10-90

No 1715 Wd 20 June 1890

Communicated to
the Supr S. I. Circle
with reference to C.O. W
3190 W 27 8th November
1889; also to other officers
of the dept. for informa-
tion and guidance.

Recd
10.6.90

S. I. Circle
Other Supr S. I. Circle
Ch. Supt. P. P. S. I. Circle
Ch. Supt. for S. I. Circle

10/6

By. Am 9 58 W 3-26-90
3190 W 3-11-90
26/20 W 24-10-90

1715
6

5556.

Govt. of India

PUBLIC WORKS.

Dated

From

To

G.O. 20 June 90 No. 1715 W.

Thermometers.

Communicating
letter from the District
of stones etc. the
sent for repairs and
stating that they are
in good condition
and request order
for goods. Descriptions
for using them

200

12

5/20/6
5/20/6