

(1) Number of pages.....

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(3) Initials of the Referenceer.....

MADRAS RECORD OFFICE.

Government of Madras.

P.W.D. Public Works DEPARTMENT.

G.O. No. <i>1820</i>	Press ~~Mis.~~
<i>371-392</i>	
Dated <i>17. 6.</i>	<i>1867.</i>

Not to be folded or roughly handled

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*Proceedings of the Madras Government, Public Works Department,
17th June 1867.*

No. 391. Read the following letter from the Officer in charge of the Public Works Store Department, to the Secretary to Government, Public Works Department, dated Chepauk, 6th June 1867, No. 230 :—

1. With reference to G. O., dated 20th May 1867, No. 1,518, communicating Despatch from the Right Honourable the Secretary of State for India, regarding the Indent for Stores required by the Public Works Department for the year 1867-68, and calling for the information required by the Home Government, I have the honour to state that the apparatus for glass blowing, referred to in paragraph 3 of the Despatch, is required for reclosing glass tubes of Spirit Levels, Levelling instruments, and Theodolites. It is found that the bubbles in several of the glass tubes received from England are too long for the brass tubes, and the glass tubes consequently have to be opened, refilled, and reclosed. Some of the glass tubes are too long, and these must be shortened to suit the brass tubes. The tubes of Thermometers have sometimes to be shortened to fit them to the scale.

2. The entire absence from the local market of glass tubes for mathematical instruments renders it essentially necessary that the Workshop should be provided with an apparatus for glass blowing, the opening and reclosing of the glass tubes being at present done by means of a simple blow pipe.

3. With respect to the further information called for in regard to the dividing machines, I have to state that as no record appears to have been kept of the nature of repairs to instruments sent to the Mathematical Instrument Maker, until after the establishment of the Presidency Workshop in 1866, it is hardly possible to furnish a reliable statement of the instruments which have required re-division.

4. Previous to the opening of the Presidency Workshop, in the year 1864, the limbs of two Theodolites were sent to the Home Government for the purpose of being re-divided; since the opening of the Presidency Workshop I find that the plates of nine Theodolites, belonging to the departments marginally noted, have

Revenue Survey.	been sent Home by the Mathematical
Railways.	Instrument Maker to have the divisions
	renewed, and that three more are now

in the Workshop awaiting the receipt of the dividing machines to be taken in hand.

5. The instruments which, as stated above, were sent Home in 1864, for the purpose of being re-divided, were received here in the course of 28 months, and the expense of the repair, exclusive of the double freight, amounted to Rupees 65. The extent to which the division of labour is carried in London may render it more convenient and economical that even some of the principal makers should employ other firms for dividing their instruments, but it does not of necessity follow that the same course will in India be attended with similar advantages. Upon the contrary, the loss of time and money involved in sending instruments to England for repair makes it questionable whether it is worthwhile to have them repaired at all, whereas if the appliances for executing the repairs were on the spot, I am convinced that many defective instruments might be made as good as new at a very small cost.

6. I need scarcely remark that it would not be to the advantage of any of the London firms to recommend that dividing machines should be introduced into India. The perhaps pardonable jealousy with which even the leading houses notoriously

*Proceedings of the Madras Government, Public Works Department,
17th June 1867.*

view any step of this nature, should make their advice upon such a subject be received with caution.

No. 392. ORDER THEREON, 17th June 1867, No. 1,820.

ACCOUNT, No. 28.

Ordered that this letter be forwarded to the Home Government, with reference to the Despatch from the Secretary of State for India No. 11 of the 8th April 1867.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Officer in charge of the Store Department.

Exd. S. T. Augustia.

*Public Works Store Department
Chepauk 5th June 1867*

N^o 230

From

*Majors J. H. M. Shaw Stewart R.E.
Under Secretary to Government P. & D.
in charge of Public Works Store Department*

To

Colonel Charles A. Orr, R.E.

Secretary to Government P. & D.

Fort Saint George

Sir

*With reference to G. O. dated 20th May 1867, N^o 1818,
communicating Despatch from the Right Honorable the Secretary
of State for India regarding the Indent for Staves required
by the P. & D. for the year 1867/68, and calling for the information
required by the Home Government, I have the honor to state
that the Apparatus for glass blowing referred to in para 3
of the Despatch is required for reclosing glass tubes for spirit
Levels, Levelling Instruments and theodolites. It is found
that the Bubbles in several of the glass tubes received from
England are too long for the brass tubes, and the glass
tubes consequently have to be opened, refilled, and reclosed.
Some of the glass tubes are too long and these must be shortened
to suit the brass tubes. The tubes of Thermometers have
sometimes to be shortened to fit them to the scale.*

*The entire absence from the local market
of glass tubes for mathematical instruments renders it
essentially*

essentially necessary that the Workshop should be provided with an apparatus for glass blowing, the opening and re-closing of the glass tubes being at present done by means of a simple blow pipe.

3 With respect to the further information called for in regard to the Dividing Machines, I have to state that as no record appears to have been kept of the nature of repairs to instruments sent to the Mathematical Instrument Maker, until after the establishment of the Presidency Workshop in 1866, it is hardly possible to furnish a reliable statement of the instruments which have required redivision.

4 Previous to the opening of the Presidency Workshop, in the year 1864, the limbs of two Theodolites were sent to the Home Government for the purpose of being redivided. Since the opening of the Presidency Workshop I find that the plates of nine Theodolites belonging to the Departments marginally noted have been sent Home by the Mathematical Instrument Maker to have the divisions renewed, and that three more are now in the Workshop awaiting the receipt of the Dividing Machines to be taken in hand.

5 The Instruments ^{which} as stated above, were sent Home in 1864 for the purpose of being redivided, were received here in the course of 28 months, and the expense of the repairs exclusive of the double freight amounted to Rupees 65-4-0. The extent to which the division of labor is carried in London may render it more convenient and economical that even some of the principal makers should employ

Revenue Survey
Exchange

employ other firms for dividing their instruments, but it does not of necessity follow that the same course will in India be attended with similar advantages. Upon the contrary, the loss of time and money involved in sending instruments to England for repair makes it questionable whether it is worthwhile to have them repaired at all, whereas if the appliances for executing the repairs were on the spot, I am convinced that many defective instruments might be made as good as new at a very small cost.

6. I need scarcely remark that it would not be to the advantage of any of the London firms to recommend that dividing machines should be introduced into India. The perhaps pardonable jealousy with which ^{every} the leading houses notoriously view any step of this nature should make their advice upon such a subject to be received with caution.

I have the honor to be,
 .. Sir
 Your most Obedient Servant,
 Munroe
 Major R.E.
 Under Secretary to Government P & D in charge

P. W. Dept.

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Proceedings of the Madras Government
Under date the 17th June 1867
Read the following
From the Officer in charge of the
Public Works Store Dept. (H.R. No. 230 D) 6 June 1867

Ordered that this
Letter be forwarded to
the Home Government
with reference to the
Despatch from the Secretary
of State for India No. 11
of the 8 April 1867

WOW

The Officer in charge of the
Store Dept.

Recd 19/6/67

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The Officer in charge of the
Public Works Store Dept.

The Secretary to Government

Public Works Store Dept.

Recd 19/6/67

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Transmitted for perusal regarding
the plan being submitted and full
information of the necessity for the
funding facilities, which were included
in the Annual Report for 1867

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Pub. Works 1867 Department

Pro. of Govt. for June
No. 1820

Pro. of the same Govt.
Of 17th June 1867

Communicating to the
Same Govt. a letter from
the Officers in charge of the
Public Works here Department
relative to the necessity for
Grinding Machines and
Glass-blowing apparatus.

No. 391-392

On 12th June 1867 P. 1312