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MADRAS RECORD OFFICE.

Government of Madras.

Public Works **DEPARTMENT.**

G.O. No. <u>2269</u>	Press <u></u>
<u>179-181</u>	~~Mis.~~
Dated <u>8-8-</u>	<u>1864.</u>

Not to be folded or roughly handled

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*Proceedings of the Madras Government, Public Works Department,
8th August 1864.*

Read the following papers :—

No. 179. From N. R. POGSON, Esq., Government Astronomer, to Colonel C. A. ORR, R. E.,
Secretary to Government, Department Public Works, dated Madras, 24th June 1864 :—

SIR,

I have the honor to request your attention to the very unsatisfactory progress of the works in hand by the Subordinate Officers of your Department, in regard to the repairs and alterations now being carried out at the Observatory.

1. I have, with regret, to complain of general inattention to my proposals, as though the requirements of an Observatory were of so ordinary a nature as to render any interference or advice from a practical Astronomer unnecessary! It is, on the contrary, most indispensable that no work shall be executed unless the plans have been first submitted to and approved by the Astronomer; and further, that no departure from such plans shall be permitted without his full consent and approbation thereto. I shall therefore feel greatly obliged by your order to that effect, with especial reference to the two Equatorial Domes now in hand; the one nearly completed, but a total failure; the other barely commenced, but without any definite plan, and as I have reason to believe quite contrary to my most urgently expressed wishes and requirements. Something must be done to render the motion of the large dome smoother and more easy. I am of opinion that the fault lies chiefly in the bad fixing of the channels, and not in the figure of the balls nor yet of the castings themselves. If however no other remedy can be devised, as the present plan will not do, the ball and groove arrangement must be discarded, and rollers, with flat plates, substituted, agreeably to the method described by Mr. Lassell of Liverpool in the XIIth Volume of the Memoirs of the Royal Astronomical Society. Taking a warning from the failure of the large dome, I beg leave most decidedly to urge the adoption of the plan above referred to, and no matter what unapproved preparations may have been made for grooves and balls, to throw them aside, and to proceed with the flat plates and rollers with the least possible delay. The second smaller dome being thus tried, will enable us to decide as to whether it would be advisable to venture upon so great a change in the larger one, without risk of further disappointment. Apart from the waste of strength and consequent unfitness of any one thus fatigued for delicate Micrometrical observations, the vibration arising from turning round the dome in its present state, is such as must interfere with the steadiness of the telescope and its adjustments; far more with the rate of the sidereal clock within the room, and there is no exaggeration in predicting the premature decay and unsafety of the building itself, unless the faults complained of are at once remedied. If my own opinion on such matters is not sufficiently conclusive to justify the alterations suggested by me as necessary for the safety and efficiency of the new dome, I would most respectfully request your own personal inspection of it, or the appointment of a Committee for the purpose of examining and reporting upon it. In any case it must be altered, and if the second dome is constructed with the same disregard to my recommendations and without my being permitted to see and examine the plan, it will undoubtedly be a source of as much unpleasantness and expense as the larger one now under consideration.

2. It has been given me to understand (in what I consider a very discourteous manner) that it is intended to erect a tower, upwards of 70 feet in height, within the Observatory compound, for the use of the Officers of the Trigonometrical Survey of India. I presume that the Government will not permit so unwelcome an intrusion upon the quarters provided for my accommodation, without so much as consulting me in the matter, and I accordingly request that no steps may be taken without my full consideration and approbation thereof. The erection of such a tower within the Observatory compound would be most objectionable, and it is also equally unnecessary. Its special object being to connect the longitude determinations of other stations with that of the centre of the Madras Transit Circle, it appears to me that the most desirable position would manifestly be exactly in the Meridian line of the Observatory; and as in such case it must on no account cut off any useful portion of the transit slit, it must be at a considerable distance, certainly not less than half or three-quarters of a mile therefrom. At about such distance there is a spot near the Spur Tank to the north of the Observatory, on which, some years back, previously to the introduction of Collimating Telescopes, a distant Meridian mark

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8th August 1864.*

was erected. The line of vision is now closed by trees, but was formerly kept clear and could easily be made so now; I therefore suggest that this would be the most unexceptionable site for the proposed tower.

Referred to the Superintending Engineer, 4th Division, for report.

CHEPAUK, (Signed) CHARLES A. ORR, Colonel, R. E.,
29th June 1864. Secretary to Government, P. W. D.

No. 180. Endorsement of the Superintending Engineer, 4th Division, dated Madras, 27th July 1864, No. 1,909:—

Read the following letter from Captain J. BECKLEY, R. E., Acting Executive Engineer, Presidency, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Madras, 13th July 1864, No. 215.

SIR,

1. With reference to your Memorandum No. 1,368, dated 2nd July 1864, I have the honor to reply that I should long ago have answered at length the statement concerning the unsatisfactory progress of the works at the Observatory, had not Mr. Pogson both personally and by letter assured me that his complaints were in no ways directed against my management of the works at the Observatory, nor even against my immediate predecessor, Captain Prendergast; he considers, however, that some three years ago when the works were planned and commenced under the superintendence of Colonel Hitchins, his wishes were not sufficiently consulted nor his advice as closely followed as desirable. From looking over the office records, &c., I have come to the conclusion that Mr. Pogson has but small reason to complain of want of attention to his wishes, and as he remarks in a letter to me that "my complaints are solely against the failure of Plans, before you became connected with your present Office" it may appear to you, as it certainly does to me, inadvisable to enter into an argument on a subject that if ever worthy of consideration should have been discussed and settled two or three years ago.

2. The works at the Observatory have most undeniably progressed very slowly, the reason of this has often been explained to Mr. Pogson, viz., that we have no workshop, and few things require more careful workmanship and accurate fitting than revolving domes and sliding shutters such as are required at the Observatory.

3. I do not consider that the larger Equatorial Dome is a total failure, and trust that it may yet be got to work satisfactorily.

4. The smaller dome, stated by Mr. Pogson to be hardly commenced, is three-fourths-part completed, and will, I have no doubt, answer perfectly. Mr. Pogson since he wrote the letter under reply has seen it revolve and I believe agrees with this opinion.

5. The last paragraph of Mr. Pogson's letter you will perceive does not need to be replied to by me.

1. Letter from Government Astronomer, dated 24th June 1864.
2. Submitted to Government, with reference to the Secretary's Endorsement, dated 29th June.

1. Do. from Executive Engineer, Presidency, No. 245, dated 13th July 1864.
2. The complaints of the Government Astronomer have reference, it has been ascertained, to the past and not to the present. As the correspondence that took place with Colonel Hitchins was chiefly of an unofficial character, that Officer's return to India must be awaited before definite replies can be given to Mr. Pogson's charges.

3. The Superintending Engineer does not doubt that the large Equatorial Dome will turn out perfectly successful. Not only was the plan countersigned by the Government Astronomer, but it is believed that it has been carried out in concert with him throughout.

4. Of the smaller dome Mr. Pogson wrote on the 20th July, "After a very cursory inspection, I unhesitatingly pronounce it to be so far one of the best and most convenient domes I have seen."

*Proceedings of the Madras Government, Public Works Department,
8th August 1864.*

5. The last paragraph of the Government Astronomer's letter is on a subject which will, it is presumed, be settled between that gentleman and Captain Branfill.

(Signed) A. J. M. BOILEAU, Colonel, R. E.,
Superintending Engineer, 4th Division.

No. 181.

ORDER THEREON, 8th August 1864, No. 2,269.

1. It appears from the foregoing papers that the Government Astronomer has stated that he is satisfied with the manner in which the work now in progress at the Observatory is being carried on. The complaints contained in the first paragraph of Mr. Pogson's letter seem to have reference to a date three years old, and as the Officer against whom they are directed is not now in India, the Government do not consider it necessary to investigate them.

2. With reference to the 2nd paragraph of Mr. Pogson's letter, the Government observe that no application has been made to them for permission to erect a tower in the Observatory compound. Mr. Pogson does not mention from whom he received his information; but Captain Branfill will be requested, with reference to his letter No. 69 of the 6th May last, to state where he proposes to erect the tower therein referred to, and whether the site named by the Government Astronomer, near the Spur Tank, to the north of the Observatory, would not answer every object he has in view.

(True Extract.)

(Signed) J. H. M. SHAW STEWART, Major, R. E.,
Deputy Secretary to Government.

To the Superintending Engineer, 4th Division.

„ Government Astronomer.

To Captain B. R. Branfill, in charge Madras Meridional Series, G. T. Survey of India.

Exd. S. T. Augustin.

may appear to you, as it certainly does to me
unadvisable to enter into an argument on a
subject that of ever worthy of consideration
should have been discussed and settled two
or three years ago.

2. The works at the Observatory have most
undeniably progressed very slowly the reason of
this has often been explained to Mr. Passon
viz that we have no workshop and few things
require more careful workmanship and ac-
curate fitting than revolving domes and
sliding shutters such as we require at
the Observatory.

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wrote the letter under reply has seen it
revolved and I believe agrees with this
opinion.

5. The last para of Mr. Passon's letter
you will perceive does not need to be
replied

replied to by me.

I have the honor to be
Sir.

Your most obedient servant.

J. M. M. Captain
R.E.

By Executive Eng. P. P.

No 1909.

Submitted to Government with
reference to the Secretary's endorsement dated 29th
June

Letter from Government
referred to by the
do - from Executive Astronomer
Eng. Presidency
21.5.11

The complaints of the Government
have reference, it has been ascertained,
to the past and not to the present. As the
correspondence that took place with Colonel
Mitchens was chiefly of an unofficial character,
and that Officers return to India must be
awaited before definite replies can be given to
Mr. Pigeon's charges.

The Superintending Engineer does
not doubt that the large Equatorial Dome
will turn out perfectly successful. Not only
was the plan countersigned by the Government
Astronomer, but it is believed that it has been
carried out in concert with him throughout.
Of

to June 27.27. 28.1909.
from No 1851.

The City Engineer
to Mr. M. J. C. Eng.
Quaidary

Recd. 13.5.11
Dec. 11.3.11

21.5.11
23.3.11
23.3.11

with reference to the
complaints made by the
Govt. Astronomer on
the slow progress of
the work at the observatory.
- Aug. 11.11 -

Of the smaller Dome Mr.

Pogson wrote on the 20th July, "After a very cursory inspection I unhesitatingly pronounce it to be so far one of the best and most convenient domes I have seen."

The last para of the Government Astronomer's letter is on a subject which will, it is presumed, be settled between that gentleman and Captain Bransford. —

Superinty. Engrs. Office. 4. M. G. S.
Madras 27th July 1864

A. H. B. A. Col. R. E.

Chf. Engr. 4. M. G. S.

To,

Colonel G. A. Orr R. E.

Secretary to Government P. W. D. —

Madras Observatory.

13

June 24th. 1864.

From

The Government Astronomer

To

Colonel C.A. Orr

Secretary to Government D.P.W.

Sir,

I have the honor to request your attention to the very unsatisfactory progress of the works in hand by the subordinate officers of your department, in regard to the repairs and alterations now being carried out at the Observatory.

1st. I have with regret to complain of general inattention to my proposals as though the requirements of an observatory were of so ordinary a nature as to render any interference or advice from a practical astronomer unnecessary! It is on the contrary most indispensable that no work shall be executed unless the plans have been first submitted to and approved by the Astronomer, and further that no departure from such plans shall be permitted without his full consent and approbation thereto. I shall therefore feel greatly obliged by your Order to that effect, with especial reference to the two equatorial domes now in hand; the one nearly completed, but a total failure; the other barely commenced, but without any definite plan, and as I have reason to believe quite contrary to my most urgently expressed wishes and requirements.

Something must be done to render the motion of the large dome smoother and more easy. I am of opinion that the fault lies chiefly in the bad fixing of the channels, and not in the figure of the balls nor yet of the castings themselves. If however no other remedy can be devised, as the present plan will not do, the ball and groove arrangement must be discarded, and rollers with flat plates substituted, agreeably

1/10/1864
From
The Government Astronomer
D.P.W.

The Superintendent Engineer
J. H. G.

The Secretary to Government
Public Works Dept.

Recd 24th July 1864.

B2 10/1909.

22269-82/1864-

Submitted to the report called

for in his endorsement of the

29th of June relative to certain

complaints from the Government

Astronomer regarding the

Equatorial Domes at the

Observatory.

1864.

230th July 1864 21st 1864

to the method described by Mr. Gassell, of Liverpool, in the XIIth volume of the Memoirs of the Royal Astronomical Society. —

Taking a warning from the failure of the large dome I beg leave most decidedly to urge the adoption of the plan above referred to, and no matter what unapproved preparations may have been made for grooves and balls, to throw them aside and to proceed with the flat plates and rollers with the least possible delay. — The second smaller dome being thus tried, will enable us to decide as to whether it would be advisable to venture upon so great a change in the larger one, without risk of further disappointment. — Apart from the waste of strength and consequent unfitness of any one thus fatigued for delicate micrometrical observations, the vibration arising from turning round the dome in its present state, is such as must interfere with the steadiness of the telescope and its adjustments; far more with the rate of the sidereal clock within the room, and there is no exaggeration in predicting the premature decay and unsafety of the building itself, unless the faults complained of are at once remedied. —

If my own opinion on such matters is ^{not} sufficiently conclusive to justify the alterations suggested by me as necessary for the safety and efficiency of the new dome, I would most respectfully request your own personal inspection of it, or the appointment of a committee for the purpose of examining and reporting upon it. —

In any case it must be altered, and if the second dome is constructed with the same disregard to my recommendations and without my being permitted to see and examine the plan, it will undoubtedly be a source of as much unpleasantness and expense as the larger one now under consideration. —

2nd. — It has been given me to understand (in what I consider a very discourteous manner) that it is intended to erect a tower, upwards of seventy feet in height, within

the Observatory Compound, for the use of the officers of the ^{the} Sigonometrical Survey of India. — I presume that the Government will not permit so unbecoming an intrusion upon the Quarters provided for my accommodation, without so much as consulting me in the matter, and I accordingly request that no steps may be taken without my full consideration and approbation thereof. — The erection of such a tower within the Observatory compound would be most objectionable, and it is also equally unnecessary. — Its special object being to connect the longitude determinations of other stations with that of the centre of the Madras Transit Circle, it appears to me that the most desirable position would manifestly be exactly in the meridian line of the Observatory; and as in such case it must on no account cut off any useful portion of the transit slit, it must be at a considerable distance, certainly not less than half or three quarters of a mile therefrom. — At about such distance there is a spot near the Spar Tower, to the North of the Observatory, on which, some years back, previously to the introduction of collimating telescopes, a distant meridian mark was erected. — The line of vision is now closed by trees but was formerly kept clear and could easily be made so now. — I therefore suggest that this would be the most unexceptionable site for the proposed tower. —

I have the honor to be
Sir

Your most obedient Servant

M R Pogson
Government Astronomer. —

Proceedings of the Madras Government
under date 8th August 1864
Read the following
17

From the Government Astronomer.
Requesting that more attention may be paid
to the opinion of the Astronomer in regard to works
in hand at the Observatory - referring especially
to the Equatorial Domes now constructing &
that all plans may in future be submitted for
approval before being carried out. Also object-
ing to the erection of a surveying Tower
within the Observatory Compound suggesting
a site for the same near the Spur Lane to
the North of the Observatory.

From the Sup^t Eng^r 4th Divⁿ
Submits the report called for in his
endorsement of the 29th ultimo relative
to certain Complaints from the Gov^t
Astronomer regarding the 2 Equatorial
Domes at the Observatory.

H.E. 24th June 1864.

H.E. 27th July 1864. N:1909.

It appears from the
foregoing papers that the
Gov^t Astronomer has
~~stated~~ stated that he
is satisfied with the
manner in which the
work now in progress
at the Observatory is
being carried on.
The Complaints con-
tained in ^{the first} para^{graph} of
Mr. Rogers's letter seem
to have reference to
a date three years
old, and as the
Officers against whom
they are directed is
not now in India,
the Gov^t do not
consider it necessary
to investigate them.
With reference to

3/11

Refined to the Chief
Engineer 4th Division per letter.

Chambers
29 June 1864
Wm. D. B.
Secretary to Govt. P. M. D.

To the Chief Engineer 4th Division
with a request that it is hoped may be attended
with his reply.

L1239 Aug 64 92

1864
11/83/16
The Government Astronomer
Colonel C. B. An
Letter to Government 30/6
29/7/64

Observatory - June 29 - 1864.
" 28 -
29/7/64 - 29/8/64
without order.

Requesting that more attention may
be paid to the opinion of the Astronomer
in regard to works in hand at the
Observatory - referring especially to the
two Equatorial Domes now constructing
and that all plans may in future be
submitted for approval before being carried
out. Also objecting to the erection of a
surveying Tower within the Observatory
Compound and suggesting a site for the
same near the Spur Lane to the
North of the Observatory.

11/79

C. 307 July 1864 Q. 100/57 N

the second paragraph
of Mr. Rogers's letter,
the Govt observe that
no application has been
made to them for
permission to erect a
tower in the Observers
Compound. Mr.
Rogers does not
mention from whom
he received his in-
formation: but
Captain Brauffill will
be requested, with
reference to his letter
of the 6th May last, to
state where he proposes
to erect the tower,
therein referred to, &
whether the site recommended
by the Govt Astronomer
near the Spur tank,
to the south of the
Observatory, would
not answer every
object he has in view.

M

* W. 69

To The Sup^d Eng^r H. th D^y
Govt Astronomer
Captain R. P. Brauffill in charge
Madras Meridianal series,
G. I. Survey of India
Sept 7th August

20

2889 } Council
3333 }

1864 Dept
Pro. of Gen. for Aug.

702269

Recd. of the Goods
D^d 8 Aug^r 1674

[Handwritten signature]

Papers relative
to the progress of the
repairs & alterations
being made at the Ob-
servatory Presidency
District.

No. 179 C. 181