

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	780	Press
B.P. No.		Mis.
568-569		
Dated	21-3-1874	195

Not to be folded or roughly handled

17

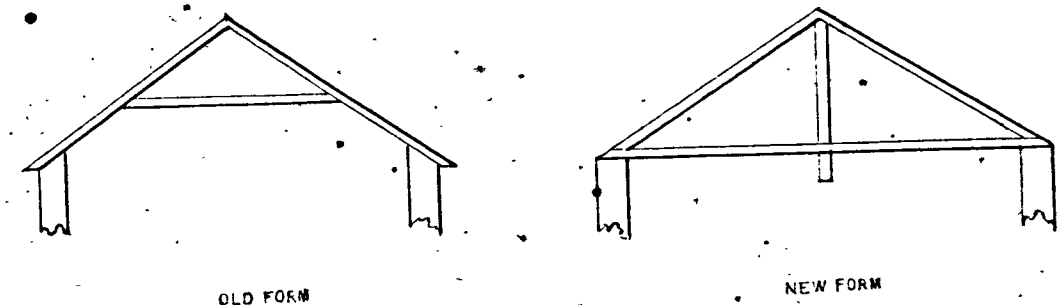
*Proceedings of the Madras Government, Public Works Department,
21st March 1874.*

No. 568. Read the following letter from R. F. CHISHOLM, Esq., Consulting Architect to Government, to Colonel G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Royapettah, 8th December 1873, No. 652:—

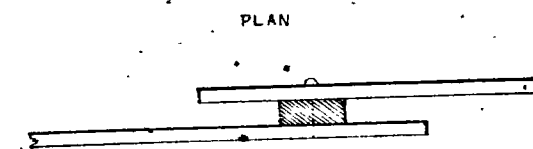
I HAVE the honour to report that a portion of the roof of the new stables of the Revenue Board fell during heavy rain on the night of the 14th ultimo. The roof was immediately reconstructed and reoccupied by the 22nd ultimo at a cost of Rupees 265.

The work was originally constructed by Mr. Patch, and as the accident was due to ignorance on the part of his maistries (Mr. Patch was seldom on the works himself), I called on him to refund the sum of money expended. This he not unnaturally objects to do on the ground that the work was executed under my immediate supervision, and therefore he could not be responsible.

The roof is an improvement on the old style of coupled rafters. Instead of the palmyrahs being coupled half-way down and so producing great cross strain, I coupled them as shown in the sketch:—



Of course the rafters should project beyond the centre piece as much as the king-post projects below them on plan thus:—



Instead of this the rafters were first weakened by cutting and then fastened thus:—



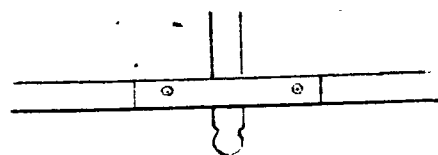
I send the end of one showing how the nails drew.

The moment this portion of the roof failed, I satisfied myself that the trusses were amply sufficient for the work by weighting them with pig-iron to

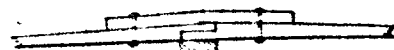
*Proceedings of the Madras Government, Public Works Department,
21st March 1874.*

more than double their permanent strain, and they bore this weight for ten days without change of form or distress.

After removing this portion of the roof, I strengthened all the other trusses by placing a piece across the ties thus:—



ELEVATION.



PLAN.

so that there is now not the slightest fear that any further accident will occur. This work was executed at a cost of Rupees 197-2-11. Total cost of renewing roof and correcting errors Rupees 462-2-11.

As the work was originally executed under my immediate superintendence, I am of course responsible for this expenditure, at the same time I would beg respectfully to point out to Government that I never entertained this Contractor and do not approve of his works. Colonel Goddard employed him to execute this and other works, and I took him over from Colonel Goddard with the works, all of which I had eventually to complete by my own men. The particular portion of the roof in question I had to take down and have reconstructed. I regret greatly this matter of false detail should have escaped my notice, but I could scarcely have imagined Mr. Patch or his maistries so grossly ignorant of the strain to which a tie would be subjected. The following extracts from the order book kept on the works will give an idea of the difficulty I had in dealing with this man.

No. 569.

ORDER THEREON, 21st March 1874, No. 780.

CIVIL WORKS, No. 55.

UNDER the explanation afforded the amount expended in partially restoring and thoroughly strengthening the roof of the stable is sanctioned.

2. His Excellency the Governor in Council regrets that the obvious mistake described by the Consulting Architect was not noticed and corrected during construction.

(True Extract.)

Colonel R.E.,

Secretary to Government.

To the Consulting Architect.

„ Officiating Controller of Public Works Accounts.

Exd. S. T. Austin.

Spare Copies

No. 652.

ARCHITECT'S OFFICE,
Royapettah, 8 December 1873.

From

THE CONSULTING ARCHITECT TO GOVERNMENT,

To

THE Secretary to Government.
Public Works Department.

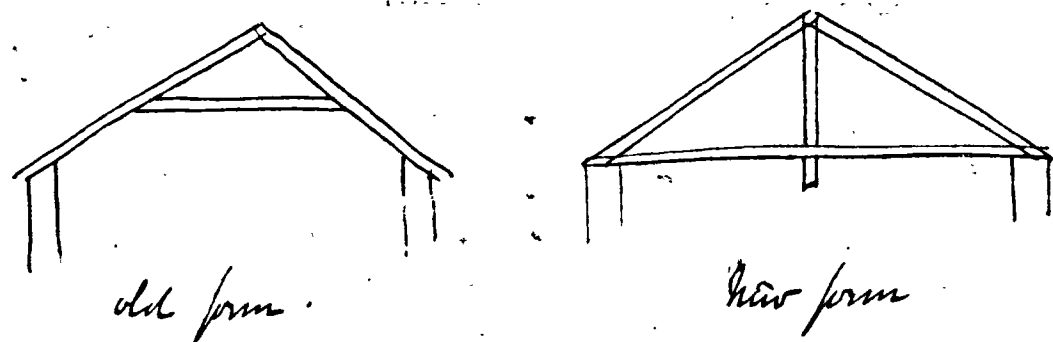
SIR,

I have the honor to report that a portion of the roof of the new stables of the Revenue Board fell during heavy rain on the night of the 14th ultimo. The roof was immediately reconstructed and re-occupied by the 22nd ultimo at a cost of Rupees 285-0-0.

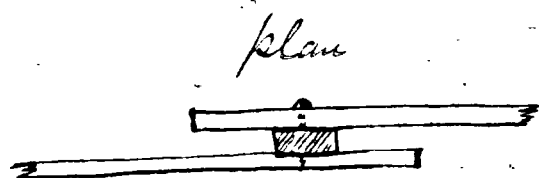
The work was originally constructed by Mr. Patch and as the accident was due to ignorance on the part of his maistries (Mr. Patch was seldom on the works himself) I called on him to refund the sum of money expended. This he not unnaturally objects to do, on the ground that the work was executed under my immediate supervision and therefore he could not be responsible.

The roof is an improvement on the old style of Coupled rafters. Instead of the paining raho being Coupled half way down and so producing great cross strain

strain. I Coupled them as shown in the sketch.



Of Course the rafters should project beyond the Centre piece as much as the King post projects below them in plan thus.



Instead of this the rafters were first weakened by cutting and then fastened thus.



I send the end of our showing how the nails drew.

The moment this portion of the roof failed. I satisfied myself that the trusses were amply sufficient for the work

work by weighting them with pig iron to more than double their permanent strain and they bore this weight for 10 days without change of form or distress.

After removing this portion of the roof I strengthened all the other trusses by placing a piece across the ties thus.



So that there is now not the slightest fear that any further accident will occur. This work was executed at a cost of Rupees 197 " 2 " 11. Total Cost of Unwinding roof and Correcting errors Rs. 462 " 2 " 11.

As the work was originally executed under my immediate supervision I am of course responsible for this expenditure, at the same time I would beg respectfully to point out to Government that I never entertained this Contractor and do not approve of his works. Colonel Goddard employed him to execute this and other works and I took him over from Colonel Goddard with the works, all of which I had eventually to complete by my

my own men. The particular portions
of the roof in question I had to take
down and have reconstructed. I
regret greatly this matter of false detail
should have escaped my notice, but
I could scarcely have imagined Mr.
Patch or his assistants so grossly ignorant
of the strain to which a tie would be
subjected. The following extracts from
the order Book kept on the works will
give an idea of the difficulty I had
in dealing with this man.

I have the honor to be,
Sir,

Your most obedient Servant.

W. A. C. L. W. L. -

Consulting Architect to Govt.

Appendix.

Extracts from Architects Order Book.

Revenue Board Stables.

29th January 1873.

Nothing whatever has been done since
my visit yesterday only. a few Carpenters are
at work. Mr. Patch will be good enough to
Report officially the reason of this.

7th February.

The little dwarf pieces of wall are
very badly built and Mr. Patch should
fine his masonry for doing such work.

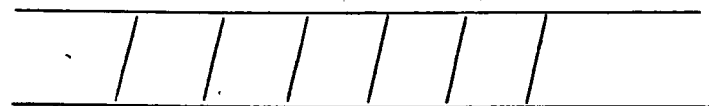
18th February 1873.

The work is scarcely progressing at all.
All the sheds should be carried on at one
time.

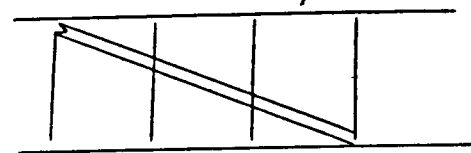
Not less than 20 men to be employed on each.

28th February 1873.

The Trusses are all out of ^{the} perpendicular.



They must be tied diagonally in 5 different
places.



26th March 1873.

Very little progress has been made
since my last visit.

I authorized the Overseer to put men on the work and I find he has not done so. I request that he will at once put a large number of men on. I will muster the men tomorrow and count them.

2. The $\times$ bracing is not according to my orders and must be altered.

3. Take down and renew the west roof as far as the $\times$ marked on the wall.

21st May 1873.

Mr. Patch will remove at once all his materials and implements and take his workmen off the work. Consulting Architect will finish off these small jobs by his own workmen.

(True Extract)

R. G. Fisher
Consulting Architect to Govt.

Ms. 721 of March 1874
In B. A. 568

6637

W. H. Brown

13/2-61 14/2-61 15/2-61

Christchurch

Proceedings of the Madras Government
Under date the February 1874
Read the following.

Not say

Under the explanation afforded the amount expended in partially erecting & thoroughly dressing the roof of the stable is sanctioned.

But that the obvious mistake described by the Civil architect was not detected & prevented during construction.

13/2-1874

It is very evident from the Consulting Architect's letter that the failure of the Roof of the Elephant Stables which he reports is due to his incurrence to the manner in which certain novelties of construction, introduced by his orders, were carried out by the Contractor. The Specification for the work allowed for simple couples; Mr. Brishobin

Chisholm substituted types
in which the ties were
halved at the points of sus-
-pension; and he was bound
to have furnished his Con-
-tractor with working draw-
-ings of the details - Failure
to do so caused the loss of
\$462 which is now
passed in addition to the
amount of original sanction -
viz \$619 - The
Extracts from his Diary
furnished by the Comd^g
Architect would appear
to shew that the Contract
for the work was either
very loosely worded, or
loosely enforced.

C.M.M.

568-569.

The Comd^g Architect with
Controller

Despe with S-C 26/7/76

Paras
As being

This has been done
have been read with regard
to these points - It has been
decided that the Comd^g Architect
must be traced -

6637



Govt. of 1874 Madras.
PUBLIC WORKS.

To The Consulting
Architect

Dated

Recd.

Encl. /

G. O. 21st March, No. 780

Nos. 568 & 569

Stables at Chepauk

The amount re-
spective of in restoring
& strengthening the roof of
the Stables at Chepauk
sanctioned —