(1) Number of pages 58+2 Maps.

(2) Date of repair 19.1.88

(3) Initials of the Referencer

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W DEPARTMENT

G.O. No. B.P. No.	720 W	Press. Mis.
	1887	
Dated	8-3.1877	~~198~~.

Not to be folded or roughly handled

Archives I--10,006 1 -80.

8th March 1887, No. 720 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers:—

Memorandum from the Secretary to Government, Public Works Department, to the Public Department, dated 6th February 1886, No. 504 C.

From N. R. POGSON, Esq., C.I.E., Government Astronomer, to the Chief Secretary to Government, dated Madras Observatory, 12th April 1886.

I have the honor to report, as desired, upon the memorandum, No. 504 C., Public Works Department, dated Chepâk, 6th February 1886, regarding the alleged present unsatisfactory condition of the three electric clocks, allotted respectively to the Marine office, the Post and Telegraph offices, and the Public Works offices at Chepâk.

2. A brief summary of the past history of the clocks is necessary to explain the extraordinary delay which has occurred in bringing them into use, for which the Astronomer is only responsible in so far as persistently refusing to agree to plans, for their erection, so contrary to his requirements as to render it impossible for them ever to be properly adjusted, cleaned, or even wound without positive danger to life and limbs. The one at the Marine office is the only one of the three which can be considered as fairly in use, but even it has had no specially paid attendant to look after it. The Post office clock was only set going experimentally about a year ago without much expectation of its proving a success, while for the Chepâk clock no reasonable plans for its erection has yet been furnished by the Consulting Architect to Government.

3. One electrical motor or controlling clock and three sympathetic or controlled clocks were first sanctioned by the Government of Madras in a G.O., dated 26th April 1864. The approval of the Right Honorable the Secretary of State to the arrangement was not given until 21st March 1868, and on 14th August of that year the controlling clock only was ordered of Messrs. Shepherd and Co., London. The three sympathetic or controlled clocks (those now under report) were also ordered of Messrs. Shepherd and Co., but not until 30th January 1871. An urgent request, made 23rd October 1872, to expedite the supply of the clocks, then over eight years under consideration, led to their immediate despatch per ship *Queen of the North*, apparently in hot haste. It subsequently transpired that the controlling clock had been at the India Office Stores, in Lambeth, under examination by the late Colonel Strange, R.E., for more than twelve months; that it had been condemned by that very able officer, whose opinion was most assuredly entitled to the utmost reliance; but that Messrs. Shepherd and Co. declined to take it back, on the ground that, if really faulty, which they contended it was not, it should have been returned at once and not kept in store awaiting examination for more than a year. I am unable to say whether the three controlled clocks underwent any inspection or not, but all four arrived at Madras, 27th February 1873. They were at once put on trial at the Observatory and were all found to be more satisfactory than might have been expected from previous accounts received. The controlling or motor clock, which had been the source of all the delays and disputes in London, proved to be an excellent time-keeper, but was spoiled by the addition of an inconvenient and most uncertain magnetical

adjustment for correcting its small daily error of a fraction of a second as found by astronomical observations. By doing away with this unsatisfactory magnetical appliance and substituting a simple gravity adjustment, the controlling clock was made all that could be desired and it has continued the same ever since. Of the three controlled clocks, none were equal in quality or performance to the electrical regulator, one being a two-faced clock, in a very ingeniously constructed but most unsuitable wooden case, the works of which though possibly just strong enough to work both pairs of hands when perfectly clean and well protected, could never be expected to do so when exposed to tropical heat and Madras dust. The other two controlled clocks had each only single dials, a little under 3 feet in diameter; their works were also much too weak, but they were supplied with handsome iron towers, on pedestals, standing about 20 feet high, and each costing some sixty or seventy pounds extra. The clock towers, sent out by Messrs. Shepherd and Co., of course fitted the clocks and were, I suppose, such as met with approval in England, but unfortunately they were at once condemned by the Consulting Architect as "Gothic abominations, too hideous and unsightly for erection in Madras." My own opinion of them was quite different, but that carried no weight against Mr. Chisholm's. It matters nothing to an Astronomer in what kind of a structure the clocks he has to superintend are placed, so long as they are safely and conveniently accessible for adjustment, winding, and repair; but it is a pity that, for such a trifling consideration as the appearance of the cases sent out, three useful and valuable clocks should have been suffered to lie idle for so many years.

4. The controlling clock or electrical regulator, when cured of its one defect, the failing magnetical adjustment before mentioned, was taken into use in February 1874 and has fired the fort time gun twice daily and been the standard mean time clock for all India ever since. The selection of sites for the three controlled clocks remained undecided for several years, until at last, in June 1879, in compliance with a sudden peremptory order, which, though directly contrary to my own recommendation, admitted of no appeal, the two-faced clock (the worst of the three) was hurriedly turned into a single dial arrangement and relegated to an obscure corner of the Marine office, where, in great measure owing to a bad earth connection, it often went wrong throughout the next five years. The clock was removed to a more conspicuous and suitable position over the centre of the Custom House and a new earth connection made in 1883, and in the following year it was again removed, its double dial was restored and it was erected in the front centre of the Post and Telegraph offices. The dial showing hours, minutes and seconds was for the outside public, to be kept exactly with the Marine clock by means of the same electrical current from the controlling regulator at the Observatory; the other dial, showing hours and minutes only, was for view from the great hall of the building, for the benefit of the Post and Telegraph Department especially, but could never be made to indicate precisely the same fraction of a minute as the outer dial. If after the clock has been tried for a few weeks under better care than it has yet received (agreeably to suggestions herein following) it still fails so frequently, I can only recommend that the inner dial should be dispensed with and the outer one only retained, when it would probably be found more subject to control from the Observatory currents than hitherto.

5. The new Marine office clock, in use since the beginning of last year, is one of the two single dial clocks, fitted with a wooden case instead of the large 20-foot iron one which came out with it. The clock room and the small gallery outside, which gives safe access to the dial and pendulum coil, are all that can be desired, and with properly paid attendance this clock would, I believe, rarely ever be a second wrong. Annual cleaning and oiling will, however, be necessary to all clocks so exposed to sun, rain and dust as these unavoidably are. So far from being *permanently* out of order, the new Marine office clock has gone very fairly, with only occasional stoppages, since its erection in December 1884.

6. With regard to the proposed Chepâk clock, there is no reason to expect that it will be otherwise than a success, provided that it is set up in a secure and accessible manner like that at the Marine office. I must, however, without any *hesitation*, such as Colonel Shaw-Stewart mistakenly lays to my charge in his memorandum, request Government to excuse me from undertaking such an impossibility as that of regulating, adjusting, and keeping an electrical clock in order under such conditions as the Consulting Architect has offered me so far. I respectfully submit that it is not indecision persistently to refuse consent to plans which I am certain could only result in failure and useless expenditure. If a suitable and reasonable plan for a clock room is submitted for my approval, I will agree to it immediately, but I cannot otherwise.

7. However convenient and suitable the building arrangements, and however perfect and carefully carried out those of the Government Telegraph Department may be, electrical clocks intended to keep true time to the second must be wound, inspected, compared, and, when necessary, adjusted by a competent person who will naturally require to be paid for such attendance. I think ten rupees a month for each clock would be fair yet moderate remuneration, and that Mr. Stuart, the signaller of the Master Attendant's Department, might, with the consent of Captain J. H. Taylor, R.N.R., be permitted to take charge of two of them in addition to his other ordinary duties. As the Chepâk clock may be considered too far distant for him to be spared to attend to, Gunner Bennett, R.A., in charge of the fort time gun, might well be entrusted with its care. No electrical clocks should be wound or in any way interfered with by any one not under my immediate orders so far as such clocks are concerned. They must on no account be included in the list of ordinary public office clocks, to be wound and repaired by contract, as was formerly done with the Marine office clock, as they can only be properly treated by a person who can note seconds correctly, who knows a little about electricity and telegraphy, and who can be relied upon for strictly carrying out my instructions and reporting to me directly a clock is not showing the precise second of Madras mean time.

8. Mr. Stuart, the shipping signaller at the Marine office, having already attended to the Marine office clock during the two years 1884 and 1885, and to the Post and Telegraph office clock throughout the last year, in anticipation of pay being granted him for the service rendered, I would further suggest that his allowance of Rs. 10 per month for charge of the Marine office clock should be retrospective from 1st April 1885. The allowance for the Post and Telegraph office clock may date from the commencement of the current official year, as its performance has not been satisfactory, although that was due to defects in the clock and not to any neglect on the part of Mr. Stuart in his hitherto unremunerated services in looking after it. Provision for these very necessary charges for the public clocks has been duly made in the budget estimate for the current year.

No. 689 C., Public.

Transferred to the Public Works Department with reference to memorandum from that department, No. 504 C., dated 6th February 1886.

(By Order.)

OOTACAMUND,
28th April 1886.

(Signed) E. S. LAFFAN,
Acting Under Secretary.

From the Consulting Architect to the Government of Madras, to the Chief Engineer, Public Works Department, dated Chepâk, 1st June 1886, No. 294.

With reference to your endorsement, No. 99 D., dated the 7th instant, I have the honor to submit two plans for the electric clock room at Chepâk. It will be seen from the Government Astronomer's letter, dated the 29th instant, a copy of which is forwarded, that he approves of the plan marked No. 2. I also forward the original plan sanctioned in G.O., No. 2831 W., dated the 26th November 1885, and copies of all the correspondence that has passed between the Government Astronomer and this office.

2. On the approval of any of the plans now submitted an estimate will be prepared.

From J. W. BRASSINGTON, Esq., Officiating Consulting Architect to Government, to the Chief Engineer, Public Works Department, dated Chepâk, 7th December 1886, No. 1090.

I have the honor to return the papers received with your endorsement, No. 4204 C., dated the 26th November 1886, with a memorandum on the subject.

ENCLOSURE.

PUTTING UP AN ELECTRIC CLOCK AT CHEPÂK.

Memorandum by Offg. Consulting Architect.

Of the three clocks received from England in 1873, the largest, with a dial 36 inches in diameter, was put up in the pediment of the Marine office. It is contained in a wooden house 5½ feet × 7 feet, with an iron railed balcony in front to enable a person to attend to the hands of the clock.

G.O., No. 968, dated 1st September 1874, Public.

2. Another clock has been fixed in the central window of the new Post and Telegraph office with two dials 32 inches in diameter, one towards the roadway facing east and the other towards the central hall of the building; the window which was being constructed was easily adapted with a light gallery to suit the purpose.

3. The remaining clock, with a dial 32 inches in diameter, was originally intended to have been put up in the neighbourhood of Messrs. P. Orr and Sons' premises, and an estimate, amounting to Rs. 847, was sanctioned for setting up the clock in the iron stand received with it with a new wooden roof and stone basement. This proposal was set aside and a larger structure sanctioned at an estimated cost of Rs. 3,110, to be erected in the triangular space opposite Mr. D'Angelis' shop in the Mount Road as a more suitable position. Subsequently it was found that the height proposed for the turret was too great and a plan was next submitted for a more ornate tower with two dials 5 feet in diameter, estimated to cost Rs. 10,078 with an additional sum of Rs. 2,000 for altering the clock into a double-faced clock, and increasing the size of the dials. This proposal was abandoned as the municipality refused to contribute any portion of the cost. It was then proposed to place the clock in the Public Works Department offices at Chepâk.

G.O., No. 533 W., dated 1st March 1882.

G.O., No. 116 W., dated 11th January 1883.

G.O., No. 3257 W., dated 16th November 1883.

G.O., No. 1205 W., dated 13th May 1884.

4. A design and estimate, amounting to Rs. 280, for putting up the clock over the porch of the Public Works Department offices was sanctioned. The Government Astronomer stated that this design did not afford sufficient protection for the clock and easy access to regulate it in front.

G.O., No. 2831, dated 26th November 1885.

5. Two designs were next prepared; No. 1 for placing the clock in a wooden house measuring 7 feet 0 inches × 3 feet 6 inches, resting on the porch, and No. 2 for placing the clock house on a raised gallery in the central arch with a staircase leading to it. The Government Astronomer approved of the latter.

6. It is now considered that a better position might be selected for the clock. The Deputy Chief Engineer suggests that it might be placed in the centre of the west verandah of the Revenue Survey office. This would certainly be a better position than at the Public Works Department offices; the house containing the clock can simply rest on the floor of the upper verandah, where it will be easily accessible. Another position in which the clock might also be placed is within the central arch on the south side of the Senate House; if the clock can be fitted with two dials, one towards the south and the other towards the Great Hall, it may be useful during the time examinations are held in the Hall, but the latter arrangement will be much more expensive.

7. Any cross road in Madras could be selected for erecting an ornamental tower, say 20 feet high, which might be designed to any sum above Rs. 2,000, for instance, on the Mount Road at the site of the Neill Statue, near the Egmore Police Commissioner's office, or near St. Mathias' Church at Vepery.

(Signed) J. W. BRASSINGTON,
Offg. Consulting Architect to Government.

From the Public Department, dated 7th January 1887, No. 434.

Note by the Chief Engineer, Public Works Department.

The history of the electric clocks and the various proposals which have been put forward for locating the third clock still remaining undisposed of, are recounted in the foregoing papers.

2. After personal inspection with the Consulting Architect, the Chief Engineer recommends that the third clock be placed on the porch of the Senate House facing south.

(Signed) J. O. HASTED, Colonel, R.E.,
Chief Engineer, P.W.D.

8th February 1887.

From the Registrar, Madras University, dated 23rd February 1887, No. 665.

From W. H. WILSON, Esq., Registrar of the University of Madras, to the Secretary to Government, Public Works Department, dated Madras, 8th March 1887, No. 698.

In reply to your letters, Nos. 613 C. and 709 C., dated the 22nd and 28th February 1887, respectively, I am directed by the Syndicate to inform you that they have no objection whatever to an electrically controlled clock being erected on the south porch of the Senate House.

ORDER—dated 8th March 1887, No. 720 W., Public Works.

The Government accept the Chief Engineer's proposal to place the third electric clock on the porch of the Senate House facing south. The Consulting Architect will, in communication with the Government Astronomer, submit a plan and estimate accordingly.

2. The subject of paragraphs 7 and 8 of the Government Astronomer's letter above recorded will receive consideration in the Public Department. The proposals therein set forth have the approval of the Government in the Public Works Department.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Consulting Architect to Government.
" Public Department.
" Educational Department.

Exd. E. Fernandez.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated March, 8th.

Recd.

G.O., 8th March 1887, No. 720

MARCH.

Electric Clock

Ordering the — now available at Madras Observatory to be placed on porch of the Senate House facing south.

P. W. Department

No. 504 C Chepak 6th Febry 86

Memorandum

With advertence to G. O. No. 1205 W dated 13th May 1884, and previous correspondence on the same subject, the undersigned has the honor to bring to notice that nothing can well be more unsatisfactory than the condition of the three electric clocks which were obtained from England for Madras, and have been allotted respectively to,

(1) Marine Office
(2) Post and Telegraph offices
(3) P. W. Offices Chepak

The first and second have been erected in accordance with the instructions of of the Government Astronomer, but appear to be permanently out of order; while the third has not yet been placed in position, although the G.O. on the subject bears date 13th May 1884. The delay in the last case is understood to be due to the Government Astronomer's hesitation to decide finally on the plans submitted by the Consulting Architect for the room to contain the clock.

It is suggested that the Government Astronomer be called upon to explain why the first two clocks are out of working order, and what steps are necessary to secure their proper and permanent adjustment. Also to report whether it is likely that the third clock will work satisfactorily, if set up; and if so to

to expedite his decision as to the form of the room which is to contain the clock. If it is not probable that the Chepak Clock will work more satisfactorily than the other two, it seems hardly desirable to incur the expense of setting it up and connecting it with the Observatory.

V Maw Stewart
Col. R.E
Secretary to Government.
P.W. Department.

To
The Public Department.

x Dio S

14/03/84 No 1288 Mis

CURRENT NO. 556

Public

8

1886.

Public Works Department

No. 504 C

Dated 6-2.86

Despatched — 6.2.0

Received 8/2

SUBJECT.

Regarding Ele

Clocks —

N: 292 C

Referred to th

Govt. Astronomer for ear

report. (By Order)

Fort St George

8th February 1886

Cn 3261

PW

92/5 88 1

The only point in this paper, with which the P. W. D. is immediately concerned, is the erection of the proposed Chepak Clock

---

oni's

unced

porting

Offices.

ich

warded

t been

tter.

also

haps para 6 of

soni letter might

warded to the Offg.

ith instructions

to an understanding

Mr P., & to expedite

pletion of a suitable

The point is however

any prominent

on the porch of

Offices would

ise with the

drings.

Cn

6.5.86

P. W. D.

9

ces

er No. of 12 April 1886

689 C of 28 — " —

Extract para 6 of the Govt. Astronomer's letter forwarded to the Offg. Consg. Architect, with advertence to this office memo. No 504 C of 6: Feby 1886, and with request that he will, as soon as possible, come to an understanding with Mr Pogson, & submit a suitable plan & estimate for the proposed clock room at Chepak.

2. In submitting the approved design,

14/6/84 [illegible]

In para 6 of his present letter, Mr Pogson states that under the conditions proposed by the Consg. Architect, regulating, adjusting & keeping the clocks in order would be an impossibility; that he is certain the proposed plan will only result in failure & useless expenditure, & that if a suitable & reasonable plan for a clock room be submitted for his approval, he will agree to it immediately.

From what I saw of the correspondence in the C.A.'s office at Madras, it appeared that the plan proposed by Mr Chisholm for the clock room was objected to by Mr Pogson as endangering the life of the person who would have to wind & regulate the clocks, while Mr Pogson's suggestions were condemned by Mr Chisholm as spoiling the architectural ~~appearance~~ features of the P. W. Offices. A modified plan which Mr Chisholm had forwarded to Mr Pogson had not been returned by the latter, & was apparently also objected to.

Perhaps para 6 of Mr Pogson's letter might be forwarded to the Offg. C.A., with instructions to come to an understanding with Mr P., & to expedite the completion of a suitable design.

The point is however whether any prominent object on the porch of the P.W. Offices would harmonise with the surroundings.

Cu
6.5.86

Yes. He may also be requested, when he submits the approved design, to forward all the correspondence that has passed between the C.A. & the Astronomer on the subj

P. W. D.

9

...ces

...er No. - of 12th April 1886

689 C of 28th ——

Extract para 6 of the Govt. Astronomer's letter forwarded to the Offg. Consg. Architect, with advertence to this Office Memo. No. 504 C of 6th Feby 1886, and with request that he will, as soon as possible, come to an understanding with Mr Pogson; & submit a suitable plan & estimate for the proposed clock room at Chepauk.

In submitting 2 the approved design,

14/6/84 No 1288 [illegible]

P. W. D.

9

No. 99 Dd/ May 7 1886

Memo

From the Govt. Astronomer No. - d 12 April 1886

Endt. Public Dept No. 689 C d 28 — — —

Extract para 6 of the Govt. Astronomer's letter forwarded to the Offg. Consg. Architect, with advertence to this Office Memo. No. 504 C d 6 Feby 1886, and with request that he will, as soon as possible, come to an understanding with Mr. Pogson; & submit a suitable plan & estimate for the proposed clock room at Chepauk.

2 In submitting the approved design,

the Consg. Architect will forward copies of all the correspondence that has passed between his office & the Govt. Astronomer on the subject.

6.5.86

No 99 Dd/ May 7 18

[illegible]

C.A. to Govt

Desp 7/5/86

10

P. W. D.

Consulting Architect's Office,
Chepak, Madras,
30th November 1885.

No 1265.

From
The Consulting Architect
to the Government of Madras,

To
N. Pogson Esqr C.I.E.
Govt Astronomer

Sir,

Enclosures.

G.O. No 2831 W.
dated 25 Nov 1885.

I have the honor to state that Govt. have sanctioned a plan and Estimate the latter amounting to Rs 280 for putting up an Electric Clock over the carriage Porch of the P. W. D. Office Chepauk.

I enclose the plan and request that you kindly return it stating if you see any objection to it.

(Signed) R. F. Chisholm
Consg Architect
to Govt

(True copy)
J. M. Lewis
Manager
Consg Archts: office

Memo: No 1321 dated 10th December 1885 from the Consulting Architect to Government to the Government Astronomer.

Chief Engineers Endorsement No 2792 D. dated 10th December 1885 on letter No 4647 dated 8th December 1885, fr Chief Superintendent of Telegraphs.

Consulting Architect would feel much obliged if the Government Astronomer would enable him to reply to this letter at once.

(Sigd) R F Chisholm
Consulting Architect

True copy!

Jno Lewis
Manager
Consg Archts Office

P. W. D.

Consulting Architect's Office,
Chepak, Madras,
5th January 1886.

No 1405

From

The Consulting Architect
to the Government of Madras,

To

The Government Astronomer
Madras

Sir,

I have the honor to invite your attention to this Office memorandum No 1321 dated 10th December 1885 and to request a very early reply thereto.

Enclosures.

I have &c.
(Signed) R. F. Chisholm
C. A. to Govt.

(True copy)

J. M. Lewis
Manager
Cons. Archt's Office

J. M. Lewis
Manager

P. W. D.

Consulting Architect's Office,
Chepak, Madras,
7th January 1886

No 1418.

From

The Consulting Architect
to the Government of Madras,

To

N. Pogson Esqr C.I.E.
Government Astronomer

Sir,

Enclosures.

I have the honor to request that you will be good enough to return the plan of the Electric clock to be placed over the Porch of the P.W.D. Office Chepauk and state if you have any objection to the plan. The works will be in a wooden watertight box.

I think it right to mention that the hands of the Electric Clock at the Telegraph Office have not moved for 3 months past.

I have &c

(Signed) R. F. Chisholm
Consg: Architect to Government

(True Copy).

Jno Lewis
Manager
Consg: Archts Office

Jno Lewis
Manager

14

Consulting Architects' office
Chepauk, Madras
11th January 1886

P.W.D.

No. 1451

From
The Consulting Architect to the Government of Madras

To
N. Pogson Esquire. C.I.E.
Government Astronomer Madras

Sir,

No. 1265 dated 30 Novr 1885
No. 1418 dated 7th January 1886.

In continuation of my letters marginally noted, I have the honor to forward detailed drawings and specification for the house to hold the electric Clock at the P.W.D offices Chepauk. The works of the clock will be in a Case similar to that at the Marine Office and this Case will be further housed in the above room. You will see from the specification that arrangements will be made to keep the temperature as low as possible and at the same time to ventilate the interior. If you approve of the drawings kindly order Messrs Orr and Sons to fit up the works in a Case similar to the one made use of at the Marine Office

An early reply is requested
I have &c
(Sd) R. F. Chisholm
Consg. Architect to Govt.

(True copy)

Jno Lewis
Manager
Cons. Archts. Office

Consulting Architects' office
Chepauk, Madras
11th January 1886

P. W. D.

No. 1445/

From
The Consulting Architect to the Government of Madras
To
N. Pogson Esquire. C. I. E.
Government Astronomer Madras

Sir,

No. 1265 dated 30 Novr 1885
No. 1418 dated 7th January 1886.

In continuation of my letters marginally noted, I have the honor to forward detailed drawings and specification for the house to hold the electric Clock at the P. W. D offices Chepauk. The works of the clock will be in a Case similar to that at the Marine Office and this Case will be further housed in the above room - You will see from the specification that arrangements will be made to keep the temperature as low as possible and at the same time to ventilate the interior. If you approve of the drawings kindly order Messrs Orr and Sons to fit up the works in a Case similar to the one made use of at the Marine Office

An early reply is requested
I have &c
(Sd) R. F. Chisholm
Consg. Architect to Govt.

(True copy)

[illegible]
Manager
Cons. Archts Office

Specification of Clock to be erected on the Sea face of the Public works office

The face of the Clock will be inserted in a Cut stone pediment. The Clock case will be protected by a structure measuring internally 3'. 8" × 1'- 8" × 6'- 0". The sides and top will be planked double with two series of 3/4" planks spaced 3 inches apart. The space between the planks will be filled in with charcoal. The upper portion of the planking will be protected by lead sheeting.

The back doors will be freely ventilated with permanent fixed venetians & the whole will be painted 3 Coats of toned white to harmonize with the Color of the stone

Sd/ R. F. Chisholm
Consg. Architect to Govt.

(True copy)

Jno. Lewis
Manager
Consg. Archts Office

Madras Observato

1886 January 22d

From

N. R. Pogson, Esq., C.I.E.,
Government Astronomer,

To

R. F. Chisholm Esq. F.R.I.B.A.
Consulting Architect to the Government
of Madras.

Sir,

With reference to your enquiries respecting the telegraph line required for regulating the new clock about to be set up by Messrs P. Orr & Sons in the Mount Road I have the honor to report as follows:—

2. The line required to regulate Messrs P. Orr and Sons clock must branch off from the Marine Office Semaphore line, at some point nearest to their Establishment, probably between the S. I. Railway Station and the General Hospital; the point of departure being entirely at the descretion of the General Superintendent of Government Telegraphs, Madras — A single line, going to earth at Messrs P. Orr & Sons, will be sufficient; but the resistance of the new short branch will require to be equalized with that of the longer line to the Marine Office to prevent failures of the Semaphore in daily use there.

3. The line to Chepauk must be quite separate and distinct from that to Messrs P. Orr & Sons, as the Chepauk clock

clock with the necessary continuous current, by means of 86400 currents per day, i.e. one every second, alternately positive and negative, while the second [illegible] clock will be simply adjusted hourly, by means of another battery, worked by different contact arrangements and by currents transmitted only along the [illegible] Office wire: — [illegible]

I have &c

(Signed) N. R. Pogson
Government Astronomer

(True copy)
[illegible]
Manager Cons: Archt's Office

No. 1538.

Consg: Architect's Office
26th January 1886.

17

From
The Consulting Architect
to the Government

To
The Government Astronomer

Sir,

I have the honor to acknowledge the receipt of your letter dated the 22nd instant. It does not give me the information I require to enable me to reply to Government.

On the 30th November last I sent you (see my letter No. 1265) sanctioned plan for putting up the clock here and requested you to inform me if you had any objection to the plan. I understand you called at my Office while I was waiting on the Board of Revenue & expressed some doubts to Mr Lewis as regards the probable temperature of the clock house. On hearing this I made out a new detailed plan with a specification shewing exactly how the house was to be constructed. This I forwarded on the 11th instant. Letter No. 1451. Before this occurred, the Govt Telegraph Chief Superintendent had written to Government to know by what date the wire would be required, see my memo to your address No. 1321 dated the 10th December.

You will see that before either you or I can answer this question it will be necessary for you to approve of the plan of the clock house for until the clock is erected the wire will not be wanted.

the Marine Office, and for winding the clock once a week.

A ridged roof would certainly be less liable to leak than a flat one, and I should think that if equally durable, your new waterproof paper would be preferable to lead sheeting; but in this point I must of course defer to your own judgment.

I have &c

(Signed) N. R. Pogson

Government Astronomer

(True Copy)

Tr. Lewis

Manager

Cons: Archi: Office

Madras Observatory

1886 January 27th

From,

N. R. Pogson, Esq. C.I.E.,

Government Astronomer,

To

R. F. Chisholm Esq. F.R.I.B.A.

Cons: Architect to Government

Sir,

In reply to your Official Memo No. 1321, dated 10th ultimo and subsequent reminders upon the same, I have the honor to state that the wire from the Observatory to your Office for the electrical regulation of the clock proposed to be erected over the porch of the principal entrance will be required about a fortnight later than the date on which I can have the room intended for the reception of the clock handed over to me ready for use.

The clock can be placed in position immediately the room is ready, but it will require to be rated for about ten days or a fortnight before it is placed in circuit with the Motor Clock at the Observatory.

The Marine Clock has worked fairly because it is in charge of one of Captain Taylor's clerks and under daily observation. Neither the Post Office clock nor the one you are about to set up can ever be expected to go properly unless a person is paid to wind and compare them,

them, under my immediate control, and I intend to suggest this to Government at once. The Fort Gun is now practically unfailing, except from bad friction tubes, when of course the electrical machinery does its work in vain. The gunner gets three annas per successful signal but nothing when the gun fails, and some similar arrangements will I think ensure the clocks from failing also:- The P. O. clock is the worst of the three, however, from having two dials to work with no more power than the other two have for shewing time upon a single face:-

I have &c
(Signed) N. R. Pogson
Govt Astronomer

(True copy)
Jn. Lewis
Manager
Consg Archts: Office

P. W. D.

Consulting Architect's Office,
Chepak, Madras,
27 January 1886

No. 1544

From
The Consulting Architect
to the Government of Madras,

To
N. R. Pogson Esqr.
Government Astronomer

Sir,

I have the honor to acknowledge the receipt of your letter dated the 27th January on the subject of fitting up the Electric clock on the porch of this building and to return the drawings for your reperusal.

Enclosures.

2 I beg to point out that it will be particularly ugly if a railing is erected in front of the clock and if the clock house is enlarged beyond the size I have given - There is ample room for a man to work on the stone ledge in front of the clock and two coolies with a bamboo would afford perfect safety if the man is nervous. Again with regard to the size of the house it is not intended that the man should get inside but that he should be able to get at all parts of the clock easily when the doors are opened. The clock will be in shade from 2 O'clock upwards and an umbrella could always protect the man if he selected rainy days for his work. 3

them, under my immediate control, and I intend to suggest this to Government at once. The Fort Gun is now practically unfailing except from bad friction tubes, when of course the electrical machinery does its work in vain. The gunner gets three annas per successful signal but nothing when the gun fails, and some similar arrangements will I think insure the clocks from failing also:- The P.O clock is the worst of the three, however, from having two dials to work with no more power than the other two have for shewing time upon a single face:-

I have &c

(Signed) N. R. Pogson

Govt Astronomer.

(True copy)

Jn. Lewis

Manager

Cons. Archt's Office

2

P. W. D.

Consulting Architect's Office,
Chepak, Madras,
27th January 1886

No. 1544.

From

The Consulting Architect
to the Government of Madras,

To

N. R. Pogson Esqr.
Government Astronomer

Sir,

I have the honor to acknowledge the receipt of your letter dated the 27th January on the subject of fitting up the Electric clock on the porch of this building and to return the drawings for your reperusal.

Enclosures.

2 I beg to point out that it will be particularly ugly if a railing is erected in front of the clock and if the clock house is enlarged beyond the size I have given. There is ample room for a man to work on the stone ledge in front of the clock and two coolies with a bamboo would afford perfect safety if the man is nervous. Again with regard to the size of the house it is not intended that the man should get inside but that he should be able to get at all parts of the clock easily when the doors are opened. The clock will be in shade from 2 O'clock upwards and an umbrella could always protect the man if he selected rainy days for his work.

3

3. I make these remarks on the assumption that Government will be pleased to place a man in Charge of the clock as suggested by you in your reply to my No. 1321 dated this day.

The favor of an early reply is requested with return of the drawing.

Vide p/6
[illegible]

I have &c.

(Sigd) R. F. Chisholm
Consulting Architect to Govt

(True copy)

Jn. Lewis
Manager
Cons. Archts Office

21

P. W. D.

Consulting Architect's Office,
Chepak, Madras,
4th February 1886

No 1587

From

The Consulting Architect
to the Government of Madras,

To

N. R. Pogson Esq. C. I. E.
Government Astronomer

Sir,

Enclosures.

I have the honor to invite your attention to this office letter No. 1544 dated the 27th January and to request the favor of an early reply as the official year is drawing to a close it is important that the work should be put in hand at once and the allotment utilized.

I have &c.

(Signed) J. H. Stephens
for Cons: Architect to Government.

(True Copy)

Jn. Lewis
Manager
Cons: Archts Office

P. W. D.

Consulting Architect's Office,
Chepak, Madras,
8th February. 1886.

No 1609.

From

The Consulting Architect
to the Government of Madras,

To

N. R. Pogson Esqr. C. I. E.
Govt astronomer

Sir,

In continuation of this Office letter No. 1544 dated the 27th January I have the honor to state that a full size clay model of the frontage for the house to contain the Electric clock, to be put up over the Porch of the D. P. W. Office can be seen at this office, clearly showing it's size, which you may inspect.

Enclosures.

No. 505 C
dated 6 Feby: /86.

I enclose copy of an Office * note received from the Chief Engineer to which I am unable to reply until the plan is approved of by you.

I have &c

(Signed) J. H. Stephens
for Consg: Architect to Govt.

~~dd~~

(True copy)

[illegible]
Manager
Cons Archts: Office

P. W. D.

Consulting Architect's Office,
Chepak, Madras,
20th January 1886.

No. 1479.

From

The Consulting Architect
to the Government of Madras,

To

The Government Astronomer
Madras.

Sir,

Enclosures.

I have the honor to invite your attention to this Office letter No. 1431 dated 11th January 1886 and to request a very early reply thereto.

I have &c
Sigd R. F. Chisholm
Consulting Architect to Govt.

(True copy)

P. W. D.

Consulting Architect's Office,
Chepak, Madras,
31st March 1886.

No. 1938.

From

The Consulting Architect
to the Government of Madras,

To

N. R. Pogson Esqr C. I. E.
Government Astronomer

Sir,

I have the honor to invite your attention to this office letters marginally* noted and to request that you will kindly return the drawings sent to you with letter No. 1544 dated the 27 January last and let me know if the house for the clock will answer or not. I am told that you inspected the model at Chepauk.

Also kindly let me know if the clock to be erected at Chepauk is likely to work well. This information is urgently wanted.

(Signed) J. H. Stephens
Offg: Ex: Engineer in charge
Cnsg: Architects office

(True copy)

Enclosures.

* No. 1544 d/ 27th Jany 1886.
" 1587 d/ 4 Feby 1886
" 1609. d/ 8th Feby. 1886.

Madras Observatory
1886 May 29th

From
N. R. Pogson, Esqr C. I. E.
Government Astronomer

To
Col. Ross Thompson R. E.
Offg Consulting Architect, Madras.

Sir,

In reply to your letter No. 259, dated 27th M
1886, I have the honor to return herewith two plans,
furnished from your Office, dated respectively Novr 1
and December 1st 1885, also two others, dated May 18th, 1886,
and distinguished as numbers 1 and 2, all in referenc
to the erection of a controlled electric clock on the east fr
of the Public Works Offices, Chepauk:

2. The plan No 2, dated May 18th, meets with
my approval and satisfaction as none of the others ca
under any circumstances, a clock, exposed daily to
hours of tropical sunshine, to rain and dust storm
and to the corroding salt laden sea breeze, is at bes
under most disadvantageous conditions, even when only
face is visible, as at the Post Office and Custom House
but if placed in a small detached room, as in the
three plans, it could scarcely be expected to go for mo
than a few weeks together without cleaning - The plan
last year were so unsuitable in every way as to be beneat
consideration

consideration and the attempt to force them upon the Government Astronomer, in spite of his repeated refusal of them, was to say the least bad taste and contemptuous disregard of his opinion.

I have &c

(Signed) N. R. Pogson
Govt Astronomer

True copy)

Mr Lewis
Manager
Cons. Archts. Office

The Consg. Architect first submitted a design for a small erection for the, clock to be built on the parapet in front of the Library but the Gov't. Astronomer objected to this design on the ground that the box containing the clock was not large enough.

P.W. Office

Two designs are now submitted one for a large room at box in front of the Library and the other for a box resting on a raised platform in the arch in front of the Library. The latter (design 2) has been approved by the Govt. Astronomer and is certainly the better of the two as the former would keep nearly all the light and air from the Library. The latter will however be expensive and it is thought that a clock in such a position will not be of much use. The occupants of the office will have to cross the road to see the time; and the public very rarely frequent the beach

till it is too dark to see the clock.?

It is considered that there are many places more suitable for a clock and the Consg. Architect might be asked for his opinion.

5/6/86

This matter has been discussed with the Hon: Members, and they approve of the proposed reference being made to the C.A. – but that it should be deferred until that post is permanently occupied.

23.6.86

D.W.

The papers on the subject are at Ootacamund.

Please note for W's information which of the plans you consider most suitable.

F.B.
4/6/6

Dir.   21

I would also point out that it will not be possible to see the time until almost exactly opposite to the clock.

F.B.

No. 99 Day 7-5-86 Clo. 3261

Proposed Chepauk Clock

Extract para 6 of letter from Mr. Pogson Govt Astronomer regarding the — forwarded to the Officiating Consg. Architect with request that he will in Commn. with Mr. Pogson submit a suitable plan and estimate for a Clockroom at Chepauk. He is also requested to forward copies of all Correspondence which has passed between his office & Mr. Pogson on the subject.

W

32

Two files are
tanding over in the
ffice "pending the
ppointment of a
[illegible] incumbent

llected
Chepak.

unt Hand Cr
the present 15-7-96

D.D.

31

[illegible]

To W

Two files are standing over in the office "pending the appointment of a permanent incumbent to the post of C.A."

As Lt. Col. Morant has applied for an extension of leave, it is submitted for orders whether the papers shall still stand over -

They are -

(1) Proposed revision of the standard designs of taluk offices -

(2) Setting up of an electric clock at Chepak.

They must stand ov for the present

Cr
15-7-96

List of subjects awaiting the appointment of an officer to the post of Cons: Architect to Government.

Current & LO no's	Subject	Remarks
LO no 3	Standard designs for first Class Taluq Offices	[illegible]
Cur: 4186 LO no: 20	Designs for the electric clock room in Chepauk	Do
4388 – 21.	Estimates for a taluq [illegible] at [illegible]	Do
LO no: 30	Applications for the post of C A to Govt.	now put up 10-8-86

J. V. 10-8-86

Department.

eorge 27th January 1887.

It would be well to have a memo. taken of action on the various matters which are now await[illegible] the 34 appointment of an officer to the post of C.A.

Vide W. 4186 in accompanying list.

JJ

9.8.

To W

The attached list, & the note on the linked file will show how the matters stand.

Cr
11.8.86

Is there nothing pending connected with new building for High Court?

JJ
11.8.86

W

There are no papers connected with the High Court buildings lying in the office [illegible]

56

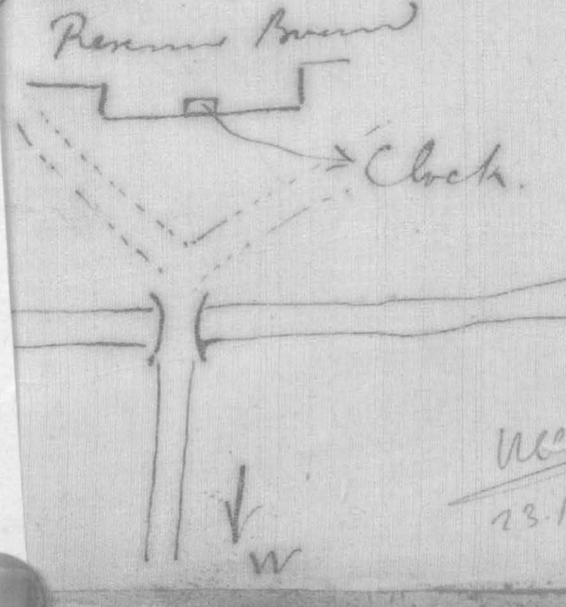
for adding to the
present ~~bul~~ building
& as his proposals
are now under con-
sideration in the
Judicial Dept &
they be approved
detailed plans &
estimates will (?)
have to be prepared
by the C.A. &
the matter will
probably have
to stand over until
a permanent
measure has
been approved

Cl
11.3.56

4204 C 36

Electric Clock.

The most suitable
position for the Clock,
... be
...ings
...
the Presidency ...



UCCB
23.11.56

Assents.

35

DC

Papers in upper
file may go to
CA with this
klip. Cl
22.11.56

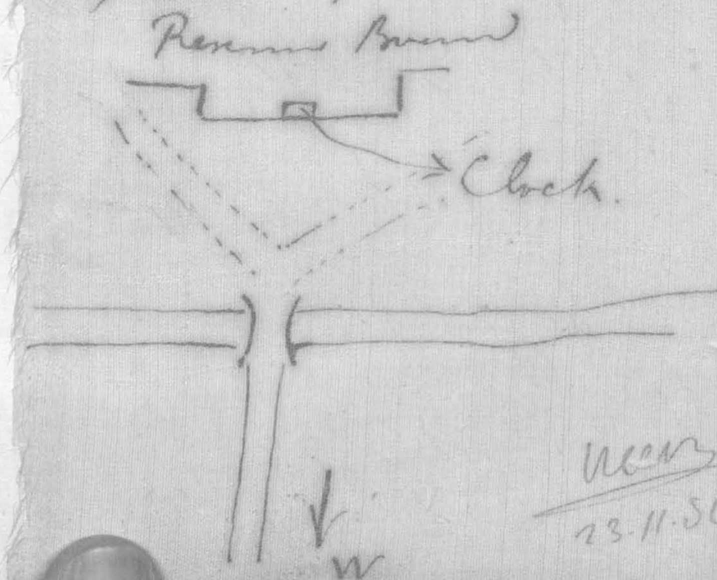
4204 C
28.11.56

for adding to the
present [illegible]
4 [illegible] his profess
[illegible] under co

Electric Clock.

The most suitable position for the Clock, appears to me to be in front of the Revenue Board buildings ~~&~~ facing the road which passes over the Canal & through Triplicane –

Every one going to the public offices at Chepauk from Madras would be able to see the clock & numbers of people go to the beach every evening by the Triplicane route.



23.11.56

37

1886.

P. W. DEPARTMENT.

Current No. 4186

~~From~~

~~The Consg. Architect Esq~~

Note by W & DW

ENCLOS.—

~~(5 plans)~~

No. ~~294~~

Dated ~~1st June 1886~~

Received ~~2 ——~~

SUBJECT.

Regarding ~~Submits plans~~ for the Electric Clock room at Chepak

---

DISPOSAL.

No. 1204 Dated 26th Novr 18

To

C. A.

Please peruse accompanying papers and favor me with your opinion.

(Sd) J.O.H.

With notes by W & AW reg [illegible] the position &c of the Ele

709 C

Ceo 1486

38

To W

The cost of erecting the electric clock will fall on Provincial funds.

The question asked as to the position of the clock requires your orders.

Ceo
26.2.87

Inform the Registrar that the cost of erecting the clock will be borne by Prov. & with regard to the position the dial, which is similar to that of the clock at the Custom House, is so small, that it will be difficult ~~then the~~ to read the hands if the clock is fixed at a considerable elevation.

28/2/87.

artments.

Public Department.
Fort St George 27th January 1887.

CURRENT No. 434

Memorandum.

Adverting to Public Department Endorsement No: 689 C. dated 28th April, forwarding to the Public Works Department, letter from the Government Astronomer No - dated 12th April 1886, in regard to the Electric Clocks at Madras. It is requested that the subject may receive very early attention.

H. E. Stokes
Ag: Chief Secretary.

To
R.S.
The Public Works Department.

Public Department.
Fort St George 7 January 1887.

P.W.C. No 651

Memorandum

G.O. No 481 d/ 26.4.64
" " 794 d/ 6.7.67
Do. Public " 13 of 1867
G.O. 370 d/ 27.3.68
" 1178 d/ 21.9.68
" 1332 d/ 24.9.69 Public
" 1383 d/ 5.10.69
Do. Public 34 of 1869
G.O. 1586 d/ 20.11.69 Public
" 498 d/ 25.4.70
" 1233 d/ 1.11.72
" 145 d/ 5.9.74
" 67 d/ 7.12.75
" 198 d/ 13.2.79
" 442 W d/ 14.2.79
" 104 d/ 18.2.79 Marine
" 513 W d/ 19.2.79
" 118 d/ 25.2.79 Marine
" 9804 d/ 31.3.79
" 616 W d/ 28.2.79
" 1088 W d/ 7.4.79
" 38 W d/ 7.1.82
" 533 W d/ 1.2.82
" 116 W d/ 11.1.83
" 42 C d/ 12.1.83
" 248 C d/ 22.1.83
" 306 W d/ 29.1.83
" 693 W d/ 3.3.83
" 3077 W d/ 31.10.83
" 3285 W d/ 17.11.83
" 2162 C d/ 7.11.83
" 3257 W d/ 16.11.83

No 2561 C d/ 19.11.83
" 2206 d/ 22.1.84
" 1105 W d/ 13.5.84
" 2380 W d/ 26.9.84
" 2205 W d/ 21.9.85
" 2059 D d/ 19.11.84
" 2670 D d/ 5.11.85
" 2835 D d/ 11.11.85
" 2831 W d/ 26.11.85
" 313 C d/ 23.1.86.
" 504 C d/ 6.2.86.
" 7?? C d/ 23.2.86

Rd 28.1.87

No 613C of 22-2-87

No 613C of 22 Feby 1887

P.W.D.

40

C/

To the Registrar
Madras University

Sir,

It having been suggested that an electric clock now available at the Observatory, be placed on the porch of the Senate House facing South, I am directed to inquire whether the Syndicate have any objection to the proposal.

I have &c

19.2.87

W

Jol
21/2/87.

Despd 22.2.87.

No. 721C of 23-2-86
" 504C - 6-2-86
" 4204C - 26-11-86
" 99A - 7-5-86
Attn file

To the Registrar
Madras University

[illegible]

No 613C of 22-2-87

No. 665 of 1886-1887

41

UNIVERSITY OF MADRAS,
The 23rd February 1887.

FROM

THE REGISTRAR OF THE
UNIVERSITY OF MADRAS.

TO

The Secretary to the
Government of Fort St. George,
Public Works Department

SIR,

In reply to your letter No. 613C dated 22nd February 1887, I have the honor to request you wil inform me whether it is proposed to erect the clo on the South porch of the Senate House at the expense of the University.

I would further enquire whether the position mentioned is not too low.

I have the honor to be,
Sir,
Your most Obedt. Ser

H. H. Wilson
Registrar

P.W.C. No. 1480

(1887.)

FROM

THE REGISTRAR OF THE
UNIVERSITY OF MADRAS.

No. 665

Dated } 23rd February

Received } 24 2 87

No. 709 [illegible]

No.

SUBJECT.

Requesting information as to whether it is proposed to erect the clock on the South porch of the Senate House at the expense of the University

---

No. 709 [illegible] P.W.D.

To
The Registrar
Madras University

Sir,

In reply to your letter No. 665 dated 23rd Feby 1887, I have the honor to state that the cost of erecting the electric clocks on the porch of the Senate House will be borne by the Govt.

2. With regard to the proposed position of the clocks, the dial, which is similar to that of the clocks

at the Marine Office, is so small, that it would be difficult to read, if the clock be fixed at a considerable elevation.

I have &c

Jolle

25/2/87 W

DC

1/3/87

No. 721 C d/ 23-2-86
" 504 C d/ 6-2-86
" 4204 C d/ 26-12-86
" 99 D d/ 7-5-86
& the file

No. 709 C d/ [illegible]

TROW

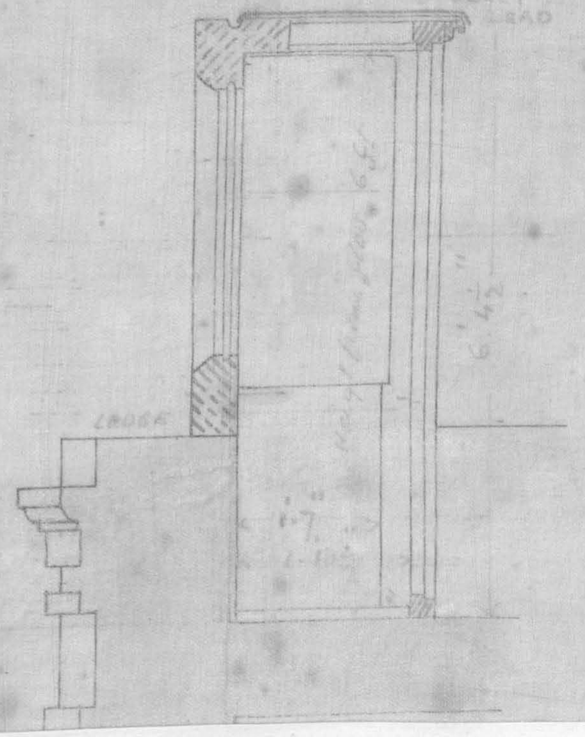
EPAUK.

NCTIONED IN .G.O.

8-3-1887

ELEC

ARCHᵀᴱ LETTER Nº 1451 DATED
11ᵀᴴ JANUARY 1886.



Connected with
G.O. No. 720 W
d 8-3-1887

1

8th March 1887, No 720 W

Madras Observatory,
1886 April 12.

From
N. R. Pogson, Esq., C.S.I.
Government Astronomer.

To
The Hon. E. F. Webster
Chief Secretary to the Government of Madras.

Sir,

I have the honor to report, as desired, upon the memorandum, No. 506 W. P.W. Department, dated Chepauk 6th February 1886, regarding the alleged present unsatisfactory condition of the three electric clocks, allotted respectively to the Marine Office, the Post and Telegraph Offices, and the P.W. Offices at Chepauk.

2. A brief summary of the past history of the clocks is necessary to explain the extraordinary delay which has occurred in bringing them into use, for which the Astronomer is only responsible in so far as persistently refusing to agree to plans for their erection, so contrary to his requirements as to render it impossible for them ever to be properly adjusted, cleaned, or even wound, without positive danger to life and limbs. The one at the Marine Office is the only one of the three which can be considered as fairly in use, but even it has had no specially paid attendant to look after it. The Post Office Clock was only set going experimentally about a year ago without much expectation of its proving a success, while for the Chepauk Clock no reasonable plan for its erection has yet been furnished by the Consulting Architect to Government.

3. One electrical motor or controlling clock and three sympathetic or controlled clocks were first sanctioned by the Government of Madras in a G.O. dated 1864 April 26. The approval of the Right Honorable the Secretary of State to the arrangement was not given until 1868 March 21, and on August 14 of that year the controlling clock only was ordered of Messrs. Shepherd & Co. London. The three sympathetic or controlled clocks (those now under report) were also ordered of Messrs Shepherd & Co, but not until 1871 January 30. An urgent request, made 1872 October 23, to expedite the supply of the clocks, then over eight years under consideration, led to their immediate despatch per Ship "Queen of the North", apparently

in hot haste. It subsequently transpired that the controlling clock had been at the India Office Stores, in Lambeth, under examination by the late Colonel Strange, R.E. for more than twelve months; that it had been condemned by that very able Officer, whose opinion was most assuredly entitled to the utmost reliance; but that Messrs. Shepherd and Co. declined to take it back, on the ground that if really faulty, which they contended it was not, it should have been returned at once and not kept in store awaiting examination for more than a year. I am unable to say whether the three controlled clocks underwent any inspection or not, but all four arrived at Madras, 1843 Feb. 27. They were at once put on trial at the Observatory and were all found to be more satisfactory than might have been expected from previous accounts received. The controlling or motor clock, which had been the source of all the delays and disputes in London, proved to be an excellent time keeper, but was spoiled by the addition of an inconvenient and most uncertain magnetical adjustment, for correcting its small daily error of a fraction of a second as found by astronomical observations. By doing away with this unsatisfactory magnetical appliance and substituting a simple gravity adjustment, the controlling clock was made all that could be desired and it has continued the same ever since.

Of the three controlled clocks, none were equal in quality or performance to the electrical regulator; one being a two faced clock, in a very ingeniously constructed but most unsuitable wooden case, the works of which though possibly just strong enough to turn both pairs of hands when perfectly clean and well protected, could never be expected to do so when exposed to tropical heat and Madras dust. The other two controlled clocks had each only single dials, a little under three feet in diameter; their works were also much too weak, but they were supplied with handsome iron towers, on pedestals, standing about twenty feet high, and each costing some sixty or seventy pounds extra.

The clock towers, sent out by Messrs. Shepherd & Co, of course fitted the clocks and were I suppose such as met with approval in England but unfortunately they were at once condemned by the Consulting Architect as "Gothic abominations, too hideous and unsightly for erection in Madras". My own opinion of them was quite different, but that carried no weight against Mr. Chisholm's. It matters nothing to an astronomer in what kind of a structure the clocks

he has to superintend are placed, so long as they are safely and conveniently accessible for adjustment, winding, and repair; but it is a pity that for such a trifling consideration as the appearance of the cases sent out, these useful and valuable clocks should have been suffered to lie idle for so many years.

4. The controlling clock or electrical regulator, when cured of its one defect, the failing magnetical adjustment before mentioned, was taken into use in February 1874 and has fired the Fort time gun twice daily and been the standard mean time clock for all India ever since. The selection of sites for the three controlled clocks remained undecided for several years, until at last, in June 1879, in compliance with a sudden peremptory order, which though directly contrary to my own recommendation admitted of no appeal, the two faced clock (the worst of the three) was hurriedly turned into a single dial arrangement and relegated to an obscure corner of the Marine Office, where, in great measure owing to a bad earth connection, it often went wrong throughout the next five years. The clock was removed to a more conspicuous and suitable position over the centre of the Custom House and a new earth connection made in 1883, and in the following year it was again removed, its double dial was restored and it was erected in the front centre of the Post and Telegraph Offices. The dial showing hours minutes and seconds was for the outside public, to be kept exactly with the Marine Clock by means of the same electrical current from the controlling regulator at the Observatory; the other dial, showing hours and minutes only, was for view from the great Hall of the building, for the benefit of the Post and Telegraph Departments especially, but could never be made to indicate precisely the same fraction of a minute as the outer dial. If after the clock has been tried for a few weeks under better care than it has yet received (agreeably to suggestions herein following) it still fails so frequently, I can only recommend that the inner dial should be dispensed with and the outer one only retained, when it would probably be found more subject to control from the Observatory currents than hitherto.

5. The new Marine Office Clock, in use since the beginning of last year, is one of the two single dial clocks, fitted with a wooden case instead of the large twenty foot iron one which came out with it. The clock room, and the small gallery outside which gives safe access to the dial and pendulum coil, are

all that can be desired, and with properly paid attendance this clock would I believe rarely ever be a second wrong. Annual cleaning and oiling will however be necessary to all clocks so exposed to sun, rain, and dust as these unavoidably are. So far from being permanently out of order, the new Marine Office Clock has gone very fairly, with only occasional stoppages, since its erection in December 1884.

6. With regard to the proposed Chepauk Clock, there is no reason to expect that it will be otherwise than a success, provided that it is set up in a secure and accessible manner like that at the Marine Office. I must however without any hesitation, such as Colonel Shaw Stewart mistakenly lays to my charge in his memorandum, request Government to excuse me from undertaking such an impossibility as that of regulating, adjusting, and keeping an electrical clock in order under such conditions as the Consulting Architect has offered me so far. I respectfully submit that it is not indecision persistently to refuse consent to plans which I am certain could only result in failure and useless expenditure. If a suitable and reasonable plan for a clock room is submitted for my approval, I will agree to it immediately, but I cannot otherwise.

7. However convenient and suitable the building arrangements, and however perfect and carefully carried out those of the Government Telegraph Department may be, electrical clocks intended to keep true time to the second, must be wound, inspected, compared, and when necessary adjusted, by a competent person who will naturally require to be paid for such attendance. I think ten rupees a month for each clock would be fair yet moderate remuneration, and that Mr. Stuart, the signaller of the Master Attendant's Department, might, with the consent of Captain J. H. Taylor, R. N. R., be permitted to take charge of two of them in addition to his other ordinary duties. As the Chepauk Clock may be considered too far distant for him to be spared to attend to, Gunner Bennett R.A., in charge of the Fort Time Gun, might well be entrusted with its care. No electrical clocks should be wound or in any way interfered with by any one not under my immediate orders so far as such clocks are concerned. They must on no account be included in the list of ordinary public office clocks, to be wound and repaired by contract, as was formerly done with the Marine Office Clock, as they can only be properly treated by a person who can note seconds correctly, who knows a little about electricity and telegraphy, and who can be relied upon for strictly carrying out my instructions and reporting to me directly a clock is not showing the precise second of Madras mean time.

8. Mr. Stuart, the shipping signaller at the Marine Office, having already attended to the Marine Office Clock during the two years 1884 & 1885, and to the Post and Telegraph Office Clock throughout the last year, in anticipation of pay being granted him for the service rendered, I would further suggest that his allowance of Rs 10 per month for charge of the Marine Office Clock should be retrospective from April 1st 1885. The allowance for the Post and Telegraph Office Clock may date from the commencement of the current official year, as its performance has not been satisfactory, although that was due to defects in the clock and not to any neglect on the part of Mr. Stuart in his hitherto unremunerated services in looking after it. Provision for these very necessary charges for the Public Clocks has been duly made in the Budget Estimate for the current year.

I have the honor to be
Sir
Your most obedient Servant
N R Pogson
Government Astronomer.

W 4

29 AP 86

No. 689 C

Transferred to the Public Works Dept with reference to Memo from that department No. 504 C d/ 6th Feby/86.

(By Order)
[illegible]
Ag. Under Secretary

Ootacamund
28th April/86

Public Dept.
G.O. No 481 · 26·4·1864
Do Do 794 · 6·7·1867
Do Do Dr. to Secy of State No 13 J 16·7·1867
Do Do No 370 · 21·3·68
" " " 1178 · 21·9·68
" " " 1332 · 24·9·69
" " " 1383 · 5·10·69
Do Despatch S. of State 34 · 8·10·69
Do Do 1586 20·11·69
Do Do 198 · 25·4·70
" " 1530 · 23·10·72
" " 1233 · 1·11·72
P.W. Ini Pro No 145 · 18·9·74
Do Do Do 67 · 7·12·78
Public Dept G.O. 195 · 13·2·79
P.W. Ini Pro 462 W · 14·2·79
G.O. Marine No 104 · 18·2·79
P.W. Ini Pro " 573 · 19·2·79
Marine G.O. 818 · 25·2·79
P.W. Ini Pro 980 W · 31·3·79
P.W. G.O. 1088 W · 7·4·79
Public Dept G.O. 1740 · 28·12·79
Marine G.O. 535 · 28·9·79
P.W. G.O. 38 W · 7·1·82

P.W. G.O. 533 · 1·3·82
" " 116 W · 11·1·83
No 112 C · 12·1·83
" 2157 C · 7·11·83
P.W. G.O. 3257 W 16·11·83
No 2561 C · 19·12·83
P. No 220 W · 24·1·84
G.O. No 1205 W · 13·5·84
P. No 2380 W · 25·9·84
" 2205 W · 21·9·85
No 2059 D · 19·4·84
" 2570 D · 5·11·85
" 2555 D · 11·11·85
" 313 C · 23·1·86
No 2792 D 10·12·85
" 219 C · 18·1·86
" 504 C · 6·2·86
" 721 C · 23·2·86

Resubmitted with R. 1566 1·5·86

P.W.C. No. 3261

Pub

CORR. No. 1478

From

The Government Astronomer
Madras

To

The Chief Secretary to Government
Ootacamund

No. 99 Feby 86

Madras Observatory
1886 April 12.

Recd 15/5

Encl. 1. Cli 556

Public Electrical Clocks.

Report upon the Madras Electrical Clocks, from their first sanction in 1864, with explanations as to past delay in their erection, unsatisfactory performance of the Post and Telegraph Office Clock, and suggestions to ensure the successful working of all three in future.

JW 14/4

With Enclosure

19/4

P.W.D.

Consulting Architect's Office
Chepauk, Madras,
1st June 1886.

No. 294.

From

The Consulting Architect
to the Government of Madras,

To

The Chief Engineer
Public Works Department

Sir,

With reference to your endorsement No. 99 D dated the 7th Instant, I have the honor to submit two plans for the Electric clock room at Chepauk. It will be seen from the Government Astronomer's letter dated the 29th Instant, a copy of which is forwarded, that he approves of the plan marked No. 2. I also forward the original plan sanctioned in G.O. No. 2831 W dated the 26 November 1885 and Copies of all the correspondence that has passed between the Government Astronomer and this Office.

Enclosure.
4 Tracings
1 Copy of letter
1 file of correspondence.

2. On the approval of any of the plans now submitted an Estimate will be

be prepared.

I have the honor to be
Sir
your Most obedient Servant

P. D. Thompson Colonel R.E.
Executive Engineer in Charge
Consulting Architects Office

JUN 26

Inst

Public Works Department.

(5)/2

From

The Consulting Architect
to the Government of Madras.

To

The Chief Engineer
P. W. Department.

No. 294

Dated 1st June 1886
Received

No. of Enclosures. 6

Subject.

Submits plans for the Electric Clock room at Chepauk

66

51

P. W. D

Consulting Architect's Office,
Chepauk, Madras,
7th December 1886.

No 1090

From

The Consulting Architect
to the Government of Madras.

To

The Chief Engineer
Public Works Department

Sir,

Enclosure.

1 Memo.

I have the honor to return the papers received with your endorsement No. 4204C dated the 26th November 1886 with a Memorandum on the subject.

I have the honor to be
Sir
Your Most obedient Servant
Offg: Consulting Architects
to Government

From the [illegible] No. 436

P.W.C. No. 9613

Public Works Department.

From

THE CONSULTING ARCHITECT
TO THE GOVERNMENT OF MADRAS,

To

The Chief Engineer
P. W. D

8 DEC 86

No. 109

Dated 7 December 1886.

Received [illegible]

No. of Enclosures one bundle

Subject.

Putting up of an Electric clock.

97/8

Putting up of an Electric clock at Chepak

Memorandum by Officiating Consulting Architect

G. O. No. 968 d. 1st Sept. 1870 Pub: Department — Of the three clocks received from England in 1873, the largest with a dial 36 in. diameter was put up in the pediment of the Marine Office it is contained in a wooden house 5½ ft × 7 ft with an iron railed balcony in front to enable a person to attend to the hands of the clock.

2 Another clock has been fixed in the central window of the new Post & Telegraph Office with two dials 32 inches in diameter, one towards the Roadway facing East and the other towards the central Hall of the building the window which was being constructed was easily adapted with a light gallery to suit the purpose.

3 G. O. No. 533 W. d. 1st March 1882 — The remaining clock with dial 32 in diameter was originally intended to have been put up in the neighbourhood of Messrs. P. Orr & Sons premises and an Estimate amounting to Rs. 847 was sanctioned for setting up the clock in the Iron stand received with it with a new

wooden

wooden roof and stone basement. This proposal was set aside and a larger structure sanctioned at an estimated cost of Rs 3,110 to be erected in the triangular space opposite Mr D'Angelis shop in the Mount Road as a more suitable position.

G.O. No 116 W
dt: 11 January 1883.

Subsequently it was found that the height proposed for the turret was too great, and a plan was next submitted for a more ornate tower with two dials 5 feet in diameter estimated to cost Rs 10078 with an additional sum of Rs 2,000 for altering the clock into a double faced clock and increasing the size of the dials. This proposal was abandoned as the Municipality refused to contribute any portion of the cost. It was then proposed to place the clock in the P.W.D Offices at Chepauk.

G.O. No 3257 W
dt: 16 November 1883.

G.O. No 1205 W
dt: 13th May 1884

4. A design and estimate amounting to Rs 280 for putting up the clock over the Porch of the P.W.D. offices was sanctioned. The Government Astronomer stated that this design did not afford sufficient protection for the clock and easy access to regulate it in front.

G.O. No 2831
dt: 26th November 1885.

5. Two designs were next prepared No 1 for placing the clock in a wooden house measuring 7' 0" x 3' 6" resting on the Porch and No 2 for placing the clock house in a raised gallery in the central Arch with a staircase leading to it. The Government Astronomer

---

Astronomer approved of the latter

It is now considered that a better position might be selected for the clock. The Dy: Ch Engineer W. suggests that it might be placed in the centre of the West Verandah of the Revenue Survey Office. This would certainly be a better position than at the P.W.D offices, the house containing the clock can simply rest on the floor of the upper Verandah where it will be easily accessible. Another position in which the clock might also be placed is within the central Arch on the South side of the Senate House, if the clock can be fitted with two dials one towards the South and the other towards the Great Hall, it may be useful during the time Examinations are held in the Hall, but the latter arrangement will be much more expensive.

Any cross road in Madras could be selected for erecting an ornamental tower say 20 feet high which might be designed to any sum above Rs 2000 for instance on the Mount Road at the site of the Neill statue, near the Egmore Police Commissioners Office or near St. Mathias' Church at Vepery

J W Brassington
Offg. Consulting Architect
to Government.

p.11
P.W. 9613/8

p 10

55 P.W.D.

Note by the Chief Engr
P.W.D.

The history of the electric clocks, & the various proposals which have been put forward for locating the third clock still remaining undisposed of, are recounted in the foregoing papers.

2. After personal inspection with ~~the~~ Consg. Architect, the Chief Engineer recommends that the third clock be placed ~~on~~ on the porch of the Senate House facing South.

Sd. E.W.
8/2/87.

[illegible]
No 655.

No. 698 OF 1886—1887

UNIVERSITY OF MADRAS,
The 8th March 1887.

FROM

THE REGISTRAR OF THE
UNIVERSITY OF MADRAS.

TO

The Secretary to Government,
Public Works department

SIR,

In reply to your letters Nos 613C and 709C dated the 22nd and 28th February 1887 respectively, I am directed by the Syndicate to inform you that they have no objection whatever to an electrically controlled clock being erected on the South porch of the Senate House

I have the honor to be,
Sir,
Your most obedt. Servt.

W. H. Wilson
Registrar

No. 698 OF 1886—1887

UNIVERSITY OF MADRAS,
The 8th March 1887.

FROM

THE REGISTRAR OF THE
UNIVERSITY OF MADRAS.

TO

The Secretary to Government,
Public Works Department

SIR,

In reply to your letters Nos 613C and 709C dated the 22nd and 28th February 1887 respectively, I am directed by the Syndicate to inform you that they have no objection whatever to an electrically controlled clock being erected on the South porch of the Senate House.

I have the honor to be,
Sir,
Your most obedt. Servt.

W. H. Wilson
Registrar

P.W.C. No. 1891

(1887.)

FROM

THE REGISTRAR OF THE
UNIVERSITY OF MADRAS.

No. 698

Dated } 8th March
Received }

No.

SUBJECT.

Informing that the Syndicate has no objection to an electrically controlled clock being erected on the South porch of the Senate House

---

B & E
Works

PUBLIC WORKS DEPARTMENT.

El-720.W

57

PROCEEDINGS OF THE MADRAS GOVERNMENT.

8th March/87.

READ the following

Memo from the Secy to Govt PWD to the Public Dept, No 6024 C of 6 Feby 1886

From the Govt. Astronomer dated 12 April 1886

Endt. Public Dept No 687 C of 28th Apr 1886

From the Consy. Arch. to Govt No 2944 of 1 June 1886

" " ——do—— No 1090 of 7 Decr 1886

" " Public Dept No 4324 of 27 Jany 1887.

Note by the Ch. Engr PWD of 8th Feby 1887.

From the Registrar Madras University No 665 of 23 Feby 1887.

" " ——do——do—— " 698 of 8 March 1887.

12

The Chief Engineer's note gives very little information but I had discussed the matter with him & came to the conclusion that the Senate House would be the best position. But H.E. will probably like to consider the point & the papers should go to him. Briefly put there is still one out of three Electric clocks which has to find a local habitation, the other two having been set up on the Custom House & the Post Office. If H.E. agrees to the site now proposed it will I suppose be necessary to obtain the consent of the Syndicate in the first instance. Whether that has

The Govt. accept the Chief Engineer's proposal to place the third electric clock ~~in~~ on the porch of the Senate House – facing south. The Consy. Architect will, in communication with the Govt. Astronomer, submit a plan & estimate accordingly.

The

P.W.C. No 1891

(1887.)

FROM

THE REGISTRAR OF THE
UNIVERSITY OF MADRAS.

No. 698

Dated } 8th March
Received }

No.

SUBJECT.

Informing that the Syndicate have no objection to an electrically controlled clock being erected on the South porch of the Senate House

---

B & R
Civil works

PUBLIC WORKS DEPARTMENT.

No 720. W

57

PROCEEDINGS OF THE MADRAS GOVERNMENT.

8th March/87.

READ the following

Memo from the Secy to Govt P.W.D. to the Public Dept, No 6024 C of 6 Feby 1886

From the Govt. Astronomer dated 12 April 1886

Endt Public Dept No 689 C of 28th Apr 1886

From the Consg. Arct. to Govt No 2944 of 1 June 1886

" " —— do —— No 1090 of 7 Decr 1886

" " Public Dept No 4324 of 27 Jany 1887.

Note by the Ch. Engr P.W.D. of 8th Feby 1887.

From the Registrar Madras University No 665 of 23 Feby 1887.

" " —— do —— " 698 of 8th March 1887.

The Chief Engineer's note gives very little information but I had discussed the matter with him & came to the conclusion that the Senate House would be the best position. But H.E. will probably like to consider the point & the papers should go to him. Briefly put there is still one out of three Electric clocks which has to find a local habitation, the other two having been set up in the Custom House & the Post Office. If H.E. agrees to the site now proposed it will I suppose be necessary to obtain the consent of the Syndicate in the first instance. which that has

The Govt. accept the Chief Engineer's proposal to place the third electric clock on the porch of the ~~in the~~ Senate House facing south. The Consg. Architect will, in communication with the Govt. Astronomer, submit a plan & estimate accordingly.

The

2. The subject of paras 7 & 8 of the Govt. Astronomer's letter above recorded will receive consideration in the Public Dept. The proposals therein set forth have the approval of the Govt. in the P.W. Dept.

been obtained the plan & estimate can be called for as here proposed

13 Feb

JH
8/2/87

HS
10/2

B

Print Copy
Send [illegible]

To the C.A. to Govt.
– Public Dept
Educational Dept

17/3

Cu.

Cir. 11.2.87 Sc 19.2.87

2. The subject of paras 7 & 8 of the Govt. Astronomer's letter above recorded will receive consideration in the Public Dept. The proposals therein set forth have the approval of the Govt. in the P.W. Dept.

JGH
8/2/87

HS
10/2

B

been obtained the plan & Estimate can be called for as here proposed

PSM
13 Feb

Passed Comm

Seen Pd

To the C.A. to Govt

- Public Dept
Educational Dept

17/3

CM

Cn. 11.2.87 Ds 19.2.87

1897

Govt. of (1887) Madras

PUBLIC WORKS

Print Cm

Show proof to

with file

10/3/18

Dated

Recd.

Encl.

G.O. 8th March 1887, No. 720

50/ Electric clock

≡

Ordering ~~Issuing orders~~ for

the — now avail

at the Madras Observa

to be placed on the

porch of the Sena

House facing South