(1) Number of pages 18

(2) Date of repair 5.8.87

(3) Initials of the Referencer

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Public Works. DEPARTMENT

G.O. No. 1510 (W) Press.
B.P. No. Mis.

Dated 29-5-1883 19 .

S.G.M

Not to be folded or roughly handled

Archives I--10,006 I -80.

1510/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers :—

From J. W. RUNDALL, Esq., Superintending Engineer, Second Circle, to the Chief Engineer, Public Works Department, dated Puligedda, 4th May 1883, No. 352 K.S.

The Collector of the Kistna having called for an estimate to be prepared for a strong-room of the design circulated with G.O., No. 276 W., of the 25th January 1882, for the new treasury to be built at Masulipatam, I instructed the Executive Engineer, Eastern Division, to prepare the same.

1 Plan.

2. On going through the plans and list of quantities circulated for guidance, Messrs. Grant and Boyle raise certain objections, which it seems to me must be answered by the General Superintendent, Public Works Stores, before a satisfactory estimate can be got out.

3. Information is required on the following points, the necessary significant letters having been marked on the enclosed plan.

Are the bolts A and A_1 correctly drawn? Apparently not, for as they are just opposite one another, they could not shoot at the same time.

How is the lever B to be drawn back any further? It seems to me that the position of all the levers as shown on the "back elevation of the left leaf" is wrong. Turning the key from right to left is impossible, and on turning it from left to right the levers would jam.

A sketch is required explanatory of the way in which the guide bars C C_1 and D cross the other bars.

Referring to the hinge, it should be explained if there is a joint at F; and if so, whether it is rivetted.

A sketch is required of the key or other instrument to work the levers and shoot the bolts.

There seems to be no connection between the cross bar secured by the padlock and the bolts. If this cross bar covered the key hole by which the levers were worked, I could understand the utility of the arrangement.

There is no cross section to show what the bolts shoot into; the upper and lower bolts must, I believe, be intended to shoot over the side of the strong-room, but the bolts at the two sides of each door are useless unless they shoot into catches, and no details of these are given.

What is the square marked G_1?

There seems to be a mistake in the estimate regarding the fuel. The total quantity of iron to be worked is 12,000 lb., whereas fuel is estimated for only 2,000 lb.

I request you will be good enough to instruct the General Superintendent, Public Works Workshops, to furnish me with detailed drawings, explaining the points which are not clear from the present plan.

No. 964 C.

Forwarded to the General Superintendent, Public Works Workshops, for submission of the requisite information.

(By Order.)

MADRAS,
15th May 1883.

(Signed) C. BOWEN, Major, R.E.,
Dy. Chief Engineer, P.W.D.

From Lieutenant W. L. C. BADDELEY, R.E., General Superintendent, Public Works Workshops, to the Deputy Chief Engineer, Public Works Department, dated Madras, 21st May 1883, No. 229 W.

With reference to your 964 C. of 15th May 1883, I have the honor to reply *seriatim* to the inquiries of the Superintending Engineer, Second Circle, with regard to the construction of the iron strong-room.

1 Drawing of strong-room.
1 Letter from Superintending Engineer, Second Circle.
1 Model of safe doors sent direct to Officer in charge Bezváda Workshops.

(1.) The drawing gives a back view of the two leaves of the door *detached* from the strong-room. When fitted into the strong-room, the four side bolts shown on the left leaf shoot into holes cut for them in the angle iron round the doorway, while four side bolts of the right leaf shoot into holes cut in the angle iron of the left leaf.

The solitary bolt shown on the left side of the drawing of the left leaf is intended to work in a *contrary* direction to the other bolts, so as to prevent the bolts of the left leaf being drawn back when the safe has been shut and locked.

There are several ways of carrying out this, but it will be as well if I first of all describe the manner in which the safe is closed, and thus show the necessity for securing the bolts of the left leaf.

First the left leaf is shut and the handle on the outside of the leaf is turned, so as to shoot out all the bolts with the exception of the solitary one before referred to, which, instead of shooting outwards, is drawn back. The right leaf is now closed and the handle turned, which shoots *all the bolts outwards*.

Now it will be observed that one bolt on the right leaf will, when the doors are fitted up, be exactly opposite to the solitary bolt on the left leaf, and as the action of shooting the bolts of the left leaf has drawn back the solitary bolt, it follows that a recess is left into which the opposite bolt of the right leaf shoots, and the two bolts will, if the construction of the levers, &c., is correct, butt flush against each other.

The next step is to turn the key in the lock at G, which shoots a small tongue into one of the arms attached to the bolts and prevents their being worked by the handle on the outside. The key of the lock at G is then removed. The hinged flap is then turned down over the key hole of G and secured with a padlock.

It will be seen now that the whole of the right leaf is perfectly secure; but at first sight it would appear that there is nothing to prevent the handle on the left leaf being turned and the bolts drawn back; but here the solitary bolt comes into play, for its movement being in the contrary direction to the other bolts of the leaf, it follows that when an attempt is made to draw back the bolts by turning the handle, this solitary bolt (which is butting flush against a bolt in the right leaf) is only pressed firmer against the bolt in the right leaf, and the whole system of locks is perfectly secure until the lock at G has been turned to release the shooting bolts of the right leaf.

In order to make matters as clear as possible, I have constructed a model showing the working of the levers; but unless the Bezváda Workshops have had practical experience in making iron safes and strong-rooms, I doubt whether they will be able to turn out the work satisfactorily.

(2.) The lever at B does not require to be drawn back, and an inspection of the model will show that the levers will not jam.

1510/2

(3.) The guide bars cross the other bars by being bent,* there being plenty of depth in the angle irons to allow of this being done. This would have become obvious in the construction.

* Or filed out in the thickness thus

(4.) There is no joint in the hinge; it is on the same principle as the pintle of a lock gate post.

(5.) The key for working the shooting bolts is simply a square shank with a handle of any pattern preferred, and it may be fixed or removable.

(6.) From what I have said it will be seen that the cross bar or hinged flap is required to secure the key hole of G, and that the lock at G secures the shooting bolts.

(7.) The shooting bolts shoot into holes cut in the angle irons.

(8.) The square at G is a lock of any pattern preferred.

(9.) The total quantity of iron required for making the strong-room is 13,410 lb., but of this amount 11,766 lb. will be worked cold, and the amount of fuel allowed therefore is ample.

(10.) There is nothing novel in the construction of the strong-room so far as this Workshop is concerned, for several similar ones have been made, and hundreds of other safes on the same principle. I think it would be advisable for the strong-room required by the Collector of the Kistna to be made up in this Workshop and sent to Bezváda in pieces to be rivetted, for, as I before said, I am extremely doubtful whether workmen unaccustomed to the construction of safes will make a satisfactory job at their first attempt upon a safe of such large dimensions.

ORDER—dated 29th May 1883, No. 1510 W., Public Works.

The foregoing correspondence will be printed and circulated for information in continuation of G.O., No. 276 W., dated 25th January 1883.

(True Extract.)

Major, R.E.,
Under Secy. to Govt., P.W.D.

To Superintending Engineers.
To the Consulting Architect to Government.
" Board of Revenue.
" Revenue Department.
" Financial do.
" General Superintendent, Public Works Workshops.

Exd. A. F. Goodall.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated May, 29th.

Read. *Encl.*

G.O., 29th May 1883, No. 1510 W.

MAY.

Strong-room in the proposed new Treasury, Masulipatam

Passing orders on correspondence regarding the construction of a —,

Read the following

No. 352 KS

Superintending Engineer's Office
2nd Circle, Camp Puligedda.
4th May 1883.

From

1510/3

The Superintending Engineer,
2nd Circle.

To

The Chief Engineer,
Public Works Department.

Enclosure one Plan.

Sir,

The Collector of the Kistna having called for an Estimate to be prepared for a strong room of the design circulated with G.O. No. 276 W of the 25th January 1883, for the new Treasury to be built at Masulipatam, I instructed the Executive Engineer, Eastern Division to prepare the same.

2. On going through the plans and list of quantities circulated for guidance, Messrs. Grant and Boyle raise certain objections, which it seems to me must be answered by the General Superintendent Public Works Stores, before a satisfactory Estimate can be got out.

3. Information is required on the

following points, the necessary significant letters having been marked on the enclosed plan.

Are the bolts A and A_1 correctly drawn? Apparently not, for as they are just opposite one another, they could not shoot at the same time.

How is the lever B, to be drawn back any further? It seems to me that the position of all the levers as shown in the "back elevation of the left leaf" is wrong. Turning the key from right to left is impossible, and on turning it from left to right, the levers would jam.

A sketch is required explanatory of the way in which the guide bars C. C_1 and D cross the other bars.

Referring to the hinges, it should be explained if there is a joint at F, and F_1, whether it is riveted.

A sketch is required of the key or other instrument to work the levers and shoot the bolts.

There seems to be no connection between the bar secured by the padlock

& the bolts. If this cross bar covered the key hole by which the levers were worked, I could understand the utility of the arrangement. 1510/4

There is no cross section to show what the bolts shoot into, the upper and lower bolts must I believe, be intended to shoot over the side of the strong room, but the bolts at the 2 sides of each door, are useless unless they shoot into Catches and no details of these are given.

What is the square marked G.? 1.3

There seems to be a mistake in the Estimate regarding the fuel. The total quantity of iron to be worked is 12,000 lbs. whereas fuel is estimated for only 2,000 lbs.

I request you will be good enough to instruct the General Superintendent Public Works Workshops to furnish me with detailed drawings, explaining the points which are not clear from the present plan.

I have the honor to be,
Sir,
Your most Obt Servant
Jno Rundall
Superintending Engineer & Cmdr

P.W.C.W-4060

Madras
15th May 1883

No 964C

From

The Supg. Engineer,
2d Circle

To

The Chief Engineer,
P.W.D.
Madras.

Dated 4th May 1883
Despd 9th do
Rect 14 —

Forwarded to the General Supt P.W. Workshops, for submission of the requisite information

(Proceedings)

C. Brown
Major R.E.
Exec. Engr 2 Circle

No 352 H.S.

Strong Room – Design circulated with G.O. No 276 W. dated 25th January 1883 for a – Forwarded a – with a request that the Superintendent P.W. Workshops may be instructed to furnish him with the detailed drawings explaining the points which are not clear from the present plan.

Forwarded

P.W.C.W-4316/83

83

PRESIDENCY PUBLIC WORKS WORKSHOPS,
Madras, 21st May 1883.

No. 229 W.

15/D/5.

From

THE GENERAL SUPERINTENDENT,
PUBLIC WORKS WORKSHOPS,

To

THE Deputy Chief Engineer
P.W.D.
Madras.

Enclosures.

1 Drawing of Strong room
1 Letter from Supt 2nd Circle
1 Model of safe doors and direct to Officer in charge Regimental Workshops.

SIR,

With reference to your 964 C of 15th May 1883, I have the honor to reply seriatim to the enquiries of the Superintending Engineer 2nd Circle, with regard to the construction of the Iron Strong room

The drawing gives a back view of the two leaves of the door detached from the strong room. When fitted into the strong room the 4 side bolts shewn on the left leaf shoot into holes cut for them in the angle iron round the doorway, while 4 side bolts of the right leaf shoot into holes cut in the angle iron of the left leaf.

The solitary bolt shewn on the left side of the drawing of the left leaf is intended to work in a contrary direction to the other bolts, so as to prevent the bolts of the left leaf being drawn back when the safe has been shut and locked

There are several ways of

of carrying out this, but it will be as well if I first of all describe the manner in which the safe is closed, and then show the necessity for securing the bolts of the left leaf.

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Now it will be observed that one bolt on the right leaf with, when the doors are fitted up, lie exactly opposite to the solitary bolt on the left leaf, and as the action of shooting the bolts of the left leaf has drawn back the solitary bolt, it follows that a recess is left into which the opposite bolt of the right leaf shoots, and the two bolts with, if the construction of the levers be is correct, butt fluch against each other.

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able

able to turn out the work satisfactorily.

2) The levers at B does not require to be drawn back, and an inspection of the model will shew that the levers will not jam.

3) The guide bars cross the other bars by being bent, there being plenty of depth in the angle irons to allow of this being done. This would have become obvious in the construction.

4) There is no joint in the hinge; it is on the same principle as the pintle of a lock gate post.

5) The key for working the shooting bolts is simply a square shank with a handle of any pattern preferred and it may be fixed or removeable.

6) From what I have said it will be seen that the cross bar or hinged flap is required to secure the key hole of G, and that the lock at G secures the shooting bolts.

7) The shooting bolts shoot into holes cut in the angle irons.

8) The square at G is a lock of any pattern preferred.

9) The total quantity of iron required for making the Strong room is 13,410 lbs. but of this amount 11,786 lbs will be worked cold and the amount

x or filed out in the thickness from [illegible]

1510

amount of fuel allowed therefore is ample.

10) There is nothing novel in the construction of the strong room so far as this Workshop is concerned, for several similar ones have been made, and hundreds of other safes on the same principle. I think it would be advisable for the strong room required by the Collector of the Kistna, to be made up in this Workshop and sent to Bezwada in pieces to be rivetted, for, as I before said, I am extremely doubtful whether workmen unaccustomed to the construction of Safes will make a satisfactory job at their first attempt upon a safe of such large dimensions.

I have the honor to be
Sir
Your most Obed[t] Serv[t]
[illegible] Lieut R.E.
Genl Supt P.W. Workshop

Lt[d].

P.W.C.N. 4316

Presidency P. W. Workshops.

From

THE GENERAL SUPERINTENDENT,
P. W. WORKSHOPS,
Madras,

To

The Chief Engineer
B. & M.
Madras

No. 229 W.

Dated 21
Despd. 22 | May 1883.
Recd. 23

No. OF ENCLOSURES. 2 (1 Plan
1 letter
1 Plan

A/no 1516 W & Y. 5. 83

Subject.

Replies sanction to the Engineer of the Supt Engr Circle with regard to the construction of the strong room for the new Treasury to be built at Masulipatam

No 1510 W

13 & R
civil work

1510/16

PUBLIC WORKS DEPARTMENT.

A/

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 29th May 83

READ the following

From
The Supt: Engineer
Second Circle } (Rcd by 352 Rs 3/4 May 83)

To The Genl Superintendent
P. W. Workshops. } (" " 2294 " 21st " ")

The foregoing
Correspondence will
be printed and Cir-
-culated for inform-
-tion in continua-
-tion of G.O. no: 270 Rv
dated 25th January
1883.

To
Supt Engineer
Cons Architect & Surv:
Bd of Rev:
Rev Dept:
Fin Dept:
Genl Supt P.W. Workshops.

CU

CU
28/5

1510/9

4660
4761

Govt. of 1883 Madras.

PUBLIC WORKS.

31/5

Dated

Rect. Encl.

G. O., 29/5 1883, No. 1510/40.

Nos.

Strong rooms in the New Treasury, Masulipatam.

Passing orders on Correspondence regarding the Construction of a

190/13

Sec 31/5

Entered in Receipt Regr