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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	1439	Press
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Dated	2-6-	874 -195-

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
2nd June 1874.*

No. 13. Read the following letter from A. PIERRES de CLOSETS, Esq., C.E., to Colonel G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Madras, 22nd December 1873 :—

In addressing you on the report submitted to the Committee examining the plans I was proposing in 1865 for the construction of an harbour in Madras, I have the honour of requesting the favor of laying down the following for the consideration of His Excellency the Governor in Council.

2. I have to state that a report from the Committee was never presented to Government on the subject, notwithstanding Government Order, No. 986, dated 11th April 1865; but the members contented themselves by writing some letter to the Committee's Secretary, as recorded in the appendix of the report. From this correspondence you will perceive that Mr. Franklin, Superintendent of Marine, and Messrs. Fraser and Sowerley, Civil Engineers, were considering the project as easily practicable; they were giving in the same time their own suggestions. Colonel Carpendale has not recorded his opinion, and this is to be regretted, as from several conversations held with him I found that he was supporting the scheme. Colonel Boileau alone expressed an adverse opinion, and stated that in theory only the scheme proposed had all the elements of perfection, but adding that the sands would silt up the entrance without possibility of dredging. This theory I tried to oppose by the publication of a letter to the Committee; however, the question has been left in abeyance till Mr. Parkes' late investigation.

3. After perusal of Mr. Parkes' remarkable report on the formation of an harbour for Madras, it has been with much gratification that I have seen my own ideas endorsed by that eminent Engineer who is entirely adverse to the theory of "silting sands" in case of jetties or piers being constructed across the surf; and the more so that the principal, or I could say the only, objection which was thrown against my plan was the opinion of Colonel Boileau, that "the sands would form deposits at the entrance of the harbour proposed and thus prevent its practical use." This opinion was so far accepted by a majority in Madras that, leaving the harbour project for future reconsideration, I proposed, at Colonel Orr's suggestion and in conjunction with him, the scheme for a "Breakwater"—a scheme approved at the time.

4. Mr. Parkes in his report mentions several plans which have been proposed from time to time for the formation of an harbour in Madras; but I have been surprised to see that he has been unaware of the detailed project proposed by myself in 1865—a project which had more than a point of similitude with his own. No mention also is being made of the design presented by the late Mr. Parkes, C. E., and which was the same as the harbour proposed by Mr. Parkes.

5. If I am allowed to draw a comparison between Mr. Parkes' project and that projected in the "island," I hope to be able to show that, under the principal heads, the harbour we proposed in 1865 has a good deal more to recommend itself to Government consideration and support.

6. Mr. Parkes takes a certain surface of the sea to be enclosed so as to form his harbour and dispense with dredging, while we were proposing to take only at sea the necessary space to form an outer harbour, and to form the remainder portion of the work by dredging the "island," and, if necessary, further the bare

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low lands surrounding Fort St. George. This idea was adopted also under strategical considerations.

7. The cost of the two schemes is nearly the same. Mr. Parkes estimates for the formation of his harbour, that is, the circumvallation only without quays, docks, warehouses, etc., amounts to £565,000; the harbour I was proposing, including all the quays, docks, warehouses, dredges, etc., was estimated at £500,000. I will observe that by constructing the quays differently than was before proposed and adopting piles, and constructing the two piers with blocks of beton as I was inducing Colonel Orr to adopt for the breakwater, the original cost would be reduced.

8. The total surface of water allowed to the shipping in Mr. Parkes' harbour is 170 acres, and as ships are to lay at anchor, he admits that sixteen ships could be accommodated inside. I think that the space thus allowed to ships is inadequate with the Madras trade; it must be recollected that during the last year the number of ships on the road were more numerous, and it is to be borne in mind that once a harbour being available on this coast, the number of ships which will enter it would be considerably increased. The harbour in the island had the advantage of accommodating sixty ships at quay, leaving besides 133 acres of water sheet free, without accounting the outer harbour; the total area was less than in Mr. Parkes' harbour, but the island harbour offers the advantage of being capable of unexpensive extension by excavating; in fact, the limits of the ground for dredging are wide enough to allow a surface of water of 400 acres entirely inside and protected by Fort St. George. For landing and shipping in my design the ships being at quay would have delivered or received their cargoes direct from the hold to the quay and warehouses, or *vice versa*; in Mr. Parkes' harbour scheme, it would be necessary to use boats as now practiced, except in case of the ships moored at the pier.

9. I come now to the question of "revenue," which is one of importance. In Mr. Parkes' project, as well as for the breakwater, a revenue would be found difficult without extra taxation. I doubt whether the Madras mercantile community would willingly accept new charges when those levied by boat owners are heavy enough, but no other means of providing funds so as to pay an interest on the cost of construction could be devised, and Mr. Parkes could not therefore propose a better mode than the savings which may be expected from the facility for shipping or loading goods. Here the island harbour will have an immense advantage. The revenue would derive:—

1. From landing and shipping at quay.
2. Warehousing.
3. Issuing dock warrants.
4. Insuring merchandize.
5. Ships entered in dock for repairs.
6. Quay dues.
7. Towing ships.

As there will be no more boats required, the same charge as paid to-day for boat hire will be applied to the shipping and unloading at quay direct. Mr. Parkes' estimates of the revenue probable on his harbour is £27,000 yearly; with our design in the island in charging 1 Rupee per ton of goods landed or shipped, and 2 Rupces per ton of merchandize for one year's storage, the revenue calculated upon

the trade of 1865 would amount to £98,500, or deducting the working charges (charges into which we entered £5,000 for dredging cost for security sake) at £40,000. It is to be observed that in case of an harbour, such as was proposed in 1865, being available, the revenue would certainly increase year after year.

10. This project of 1865 has also the advantage of collecting and transporting to the sea without expenditure all the sewage from the town so diluted as to be obnoxious. This item has its importance under a sanitary point of view.

11. Mr. Parkes' scheme will be incomplete without some defence works at sea for the protection of the shipping in case of emergency; in our project Fort St. George was to meet this contingency.

12. Another item not accounted for in Mr. Parkes' scheme but entered in our plans is the establishing of docks for ships under repair.

13. Certainly with such arrangements as I was proposing it would have been necessary to remove the office of the Sea Customs and Marine Department, and to have these located on the spot; but I think this would have been considered as trifling reasons against the advantage of our project.

14. Another objection to the island project is perhaps that to arrive at its execution it would be necessary to remove the iron bridge constructed at the outlet of the Cooum, but this bridge could be easily removed without injury and transported more inland so as to connect the main road to the quay.

15. Now that the question of "silting sand" has been disposed of favourably; that accordingly to Government Order, No. 986, of 1865, a solution could be given; and as Mr. Parkes' report is open to discussion, I think that it will be advisable to reconsider the project of the harbour in the island in the same time as Mr. Parkes' harbour formation scheme, so as to arrive at the best means of securing the maximum of advantages with the minimum of expenditure.

16. Such are, Sir, the reasons which have induced myself to present you with the report published at the time on my design for an harbour in Madras, and to lay down the above remarks upon Mr. Parkes' and my own proposals.

17. Should Government consider useful or necessary to collect more information on the project of 1865, I shall be much honoured in putting myself freely at the Government disposal.

No. 14. ORDER THEREON, 2nd June 1874, No. 1,439.

CIVIL WORKS, No. 1.

THE acknowledgments of the Government are offered to Mr. deClosets for the pains he has taken to elaborate a design for a close harbour at Madras. But His Excellency the Governor in Council has already decided on adopting Mr. Parkes' plan of operations.
(True Extract.)

Colonel, R.E.,
Secretary to Government.

To Mr. DeClosets.

Exd. E. C. Shunker.

Spare Copies

From:
A. Pierris de Closets Esq. C.E.

To:
Col. G. W. Walker R.E.
Secretary to Government
Department of Public Works.

Sir:

1st In addressing you the Report submitted to the Committee examining the plans I was proposing in 1865 for the construction of an Harbour in Madras, I have the honor of requesting the favor of Laying down the following, for the consideration of his Excellency the Governor in Council.

2nd I have to state that a Report from the Committee was never presented to Government on the subject, notwithstanding Government order No 386, dated 11 April 1865, but the members contented themselves by writing some letters to the Committee's Secretary as recorded in the Appendix of the Report. From this correspondence, you will perceive that Mr Franklin, Asst of Marine, and Mr Fraser & Sawney, Civil Engineers were considering the project as easily

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practicable they were giving in
the same time their own suggestions;
Col! Carpendale has not recorded
his opinion, and this is to be
regretted, as from several conversations
held with him, I found that he
was supporting the scheme. Col.
Baileau alone expressed an
adverse opinion, and stated that
in theory only the scheme proposed
had all the elements of perfection,
but adding that the sand would
silt-up the entrance, with an
possibility of Dredging. This
theory I tried to oppose by the
publication of a letter to the
Committee. However the question
has been left in abeyance till
Mr Parker's late investigations.

3^d After perusal of Mr Parker's
remarkable report, on the formation
of an harbour for Madras, it has
been with much gratification,
that I have seen my own ideas
endorsed by that eminent Engineer
who is entirely adverse to the
theory of "silt-up sand" in case
of jetties or Piers being constructed
across the surf; and the more so
that the principal - or I could
say - the only objection which
was thrown against my plan
was the opinion of Col. Baileau
that "the sand would form
deposits at the entrance of the

harbour, proposed, and thus
prevent its practical use.
This opinion was so far accepted
by a majority in Madras, that
leaving the harbour project for
future reconsideration, I proposed
at the Col^l OR suggestion and
in conjunction with him, the
scheme for a "breakwater".
scheme approved at a time.
4^o Mr Parker in his report,
mentions several plans which
have been proposed from time
to time for the formation of
Harbour in Madras, but I
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he has been unaware of the
detailed project proposed by
myself in 1865, project which
had more than a point of
similitude with his own; no
mention also is being made
of the design presented by the
late Mr Parker C.E. and which
was the same as the Harbour
proposed by Mr Parker.
5^o If I am allowed to draw
comparison between Mr Parker
project and that projected in
the "Island" I hope to be able
to show that under the principal
heads the harbour we proposed
in 1865, has good deal more
to recommend itself to govern^{ment}
consideration and support.

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6°. Mr Parker takes a certain surface of the sea, to be enclosed so as to form his harbour and dispense with dredging; while we were proposing to take only out sea the necessary space to form an outer-harbour, and to form the remainder portion of the mouth by dredging the "Island" and if necessary further the bare low lands surrounding the Fort St George. This idea was adopted also under strategic considerations.

7°. The cost of the two schemes is nearly the same. Mr Parker estimated for the formation of his harbour - that is: the circumvallation only without quays, docks, warehouses - amounts to £ 565 000; the Harbour I was proposing including all the quays, docks, warehouses, bridges &c was estimated at £ 500 000.

I will observe that by constructing the quays differently ~~than~~ was before proposed and adopting piles and constructing the two Piers with blocks of Beton as I was inducing Col^l Orr to adopt for the Breakwater, the original

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loss would be reduced.

4² The total surface of water allowed to the shipping, in Mr Parker Harbour, is 170 acres and as ships are to lay at anchor, he admits that sixteen ships could be accommodated inside, I think that the space thus allowed to ships is inadequate with the Madras trade, it must be recollected that during the last year the number of ships on the road were more numerous, and it is to be borne in mind that once a harbour being available on this coast the number of ships which will enter it, would be considerably increased. The Harbour in the Island had the advantage of accommodating sixty ships at quay, leaving besides 133 acres of water sheer free, without accounting the outer harbour. The total area was less than in Mr Parker Harbour, but the Island harbour offers the advantage of being capable of ^{unexpensive} extension by excavating in fact the limits of the ground for dredging are wide enough to allow a surface of water of 400 acres entirely, inside and protected by the Fort George.

For landing and shipping in ⁶
any design, the ship being at
quay would have delivered or
received their cargoes direct
from the hold to the quay and
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Mr Parker's harbour scheme,
it would be necessary to
use boats as now practiced,
except in case of the ship
moored at the Pier.

3^d I come now to the question
of "Revenue" which is one of
importance; In Mr Parker's project
as well as for the Breakwater the
Revenue would be difficultly found
with our extra-taxation, I doubt
~~whether~~ the Madras mercantile
community would willingly
accept new charges, when those
levied by boat owners are heavy
enough, but no other means
of providing funds so as to pay
an interest on the cost of
construction could be devised, and
Mr Parker could not therefore
propose a better mode than
the savings which may be
expected from the facility for
shipping or loading goods.
Here the Island harbour will
have an immediate advantage
the Revenue would derive

1^o From landing & shipping at quay.

2^o Warehousing.

3^o Mending Dock Warrants

4^o insuring merchandise

5^o Ship entered in Dock for repairs

6^o quay dues

7^o Towing ships.

As there will be no more boats required, the same charges as paid to day for boats hire will be applied to the shipping and unloading at quay direct; Mr Parker estimates of the Revenue probable of his harbour is £ 27000 yearly with our design in the island in charging (1) one Rupee p ton of goods landed or shipped, and (2) two Rupees p ton of merchandise for one year storage, the Revenue calculated upon the trade of 1865, would amount to £ 98500, or deducting the working charges (charges in to which we entered £ 5000 for dredging cost, for security sake) at £ 40000. It is to be observed that in case of an Harbour, such as was proposed in 1865, being available the Revenue

would certainly increase
year after year.

10th This project of 1865 has also
the advantage of collecting and
transporting to the sea without
expenditure all the sewage
from the town, so diluted
as to be obnoxious, this item
has its importance under a
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incomplete without some
defences ^{works} at sea for the protection
of the shipping in case of
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Fort St George was to meet
this contingency.

12th Another item not accounted
for in Mr Parker's scheme, but
entered in our plan, is the
establishing of docks for the
ships under repairs.

13th Certainly with such arrangements
as I was proposing, it would
have been necessary to remove
the office of the sea Customs
and Marine Department to have
them located on the spot, but
I think, this would have been

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Considered as trifling reason
against the advantage of our
project.

14th Another objection to the
Island project is perhaps that
to arrive at it's execution,
it would be necessary
to remove the iron bridge
constructed at the outlet
of the lagoon, but this bridge
could be easily removed
with out injury and transport
more inland so as to connect
the main road to the quay.

15th Now that the question
of "Silted sand" has been
disposed of favorably, that
accordingly to government
order no 986^{of 1865} a solution
could be given, and as Mr
Parlier report is open to
discussion, I think that it
will be advisable to reconsider
the project of the Harbour
in the Island, in the same
time as Mr Parlier Harbour
formation, scheme, so as to
arrive at the best means
of securing the maximum
of advantages, with the

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missionum of expenditure.

16th Such are, Sir, the reasons
which have induced myself
to present you with the report
published at the time, on my
design for such a work in
Madras, and to lay down
the above remarks upon
Mr Parker and my own
proposals.

I should be much
convinced useful or necessary
to collect more information
on the project of 1865, & shall
be much honored in
putting myself freely
at the Government disposal.

I have the honor
to be, Sir,

Your Obedient

C. W. Hodson C.E.

Madras 22 December 1873.

Chas. B. ...

May 1874 West
from ...

from
A. Mc ...

May 22 West
No 1 ...

C. B. ...

Submitting ...

books for the ...

... ..

... ..

G. Q. No. 1439. 2-6-74.

1429

P. W. D.

Proceedings of the Madras Government,

Under date the 1874.

Read the following:—

From A. de Closets Esq. N^o 22nd
December 1873.

The acknowledgments
of the Government are
offered to Mr. de Closets
for the pains he has
taken to elaborate a
design for a close Harbour
at Madras. But
His Excellency the Govern-
or in Council prefers
Mr. Parker's plan of
operations [and must
decline to entertain that
of Mr. de Closets]

Mr. de Closets

20/12/73

18/4

Should state here - ✓

Suppose Mr. P. has seen

Mr. de Closets plan

G.M.

1944 - A ✓

Govt. of Madras.

PUBLIC WORKS.



To

Mr. Delclosets

Dated

Recd.

Encl.

G. O. 2 June 1874, No. 1439

Nos. 13-4.

Madras Harbour

Conveying to Mr.
D'Closets the acknow-
ledgments of Govt. for
his Harbour Project with
an intimation that the
Plan by Mr. Parkes
will be adopted -