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(3) Initials of the Referencer J

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	46	Press
		M.L.
Dated	25-10-38	

Not to be folded or roughly handled

30-10-38

*Proceedings of the Madras Government, Public Works Department,
for the month of January 1860.*

No. 75. Read the following letter from Lieutenant-Colonel J. H. BELL, Chief Engineer ;
to T. PYCROFT, Esq., Chief Secretary to Government, dated 11th January 1860,
No. 9038.

I have the honor, with reference to the orders of Government as per margin, to report that
September 23th 1859 No. 2323. Captain Chambers has returned from Calcutta after fully per-
January 5th 1860, No. 6. forming the duty of investigating the Bengal system of accounts.
1 Copy of letter from Captain Cham-
bers, dated 5th January 1860.

2. Captain Chambers has explained to myself and Captain
Shaw Stewart the Bengal system in so clear a manner that there is no reason for further detain-
ing him at Madras. I have, therefore, instructed him to proceed at once to Bombay agreeably
to the order No. 2323, above quoted.

3. I beg to submit copy of the report of Captain Chambers for present information. It
will be some time before I can submit my own report upon
the subject of the Bengal account system as investigated by
Captain Chambers ; but this is of no consequence, as I have no intention at present of propos-
ing changes in our own system.

No. 76. ORDER THEREON, 25th January 1860, No. 194.

The Government will await the Chief Engineer's report on the Bengal system of accounts
promised in paragraph 3 of this letter.

(Signed) T. PYCROFT,
Chief Secretary.

Calcutta
5th January 1860

From

Captain D. Chambers
Chief Engineer R. E.
In Special Duty

To

Colonel R. M. Bell
Chief Engineer B. I. A.
Fort Saint George

I have made my self acquainted
with the Bengal System of keeping the Accounts of
the Public Works Department in harmony with the
Resolution contained in Proceedings of Government
No. 2260 of the 25th September 1859, I do myself
the honor of reporting on the same to you as soon as
as possible

The Reports of Colonel Baird Smith C.E.
and of Major Strachey, the Bengal Code, the Book of
Forms (Part I) and the Specimen Forms, all of which
accompanying this, give such a minute account of the
Bengal

Bengal, or more properly the Rooster, System, not
any lengthy Report would be out of place, especially
after the personal communication on the subject
which I have had with you, but it may be as well
if I attempt to bring before you the points in which
this Rooster system differs from that obtaining
in this Presidency, as well as to offer a few remarks
on the same generally.

3. The Systems vary in many particulars
as I have indicated hereafter, but principally in two very
important points, namely in the Central Office
in Bengal being the Office of Examination, Abstraction
and Audit of the Subordinate Agents Accounts
and in the method in which the Accounts of the Stock,
that is, the preparation or purchase and the expenditure
of Railway Materials, are kept.

4. With us the Accounts and Vouchers
for all works executed by lower Subordinates are sent
to the Executive Agent of the Engineering and

and from these that Officer prepares Bills, Vouchers,
together with the documents first mentioned, are next
passed on to the District Engineer who verifies and
audits them, and then despatches them, with the
Vouchers, to the final office where a final
arithmetical check is made.

5. In Bengal the various Subordinate
Accounts go to the final office where they are
checked, abstracted and passed, information is that
each being sent back within (theoretically) three
months to the respective Agents, these Accounts are
not submitted to a beautiful but laborious system
of verification and ultimate record by double entry,
after which Bills are prepared, all these things
being placed in the final office.

6. With respect to the Stock Account,
in our practice we buy or make every thing we
need in the shape of materials and charge the
same to the individual work on which the article
is expended, if more materials have been
collected than are necessary, the work which has

paid

paid for them sells them to any other work needing the same, and the amount realized is debited to the Executive Agent of the range in which the work lies in his account current under the head of "Stock Receipts."

4. By the Bengal method all materials are manufactured or purchased for the Division generally, and each manufacture is treated exactly like a work in progress, having to furnish a monthly figure of abstract of quantities and expenditure, and having its stock account to the Executive Agent. On the other hand when stock is in process or is work in progress is entered with its price in the figure of abstract for the work, the price being fixed by the Central Office which debits the Executive Agent with the stocks assumed to be, an amount arbitrarily determined by the average cost (including carriage)

throughout

throughout the District of the specific work to use.

8. In other words, all Building materials, prepared or collected in a Division, are assumed to belong to the Chief Engineer who sells them at a uniform rate, inclusive of carriage, to each Executive Agent, debiting him with the same, and, per contra, crediting him (the Agent) with the actual sum disbursed in the subdivision in the preparation or purchase of materials.

9. Besides these two main points of difference, some of the minor ones are:

1. The method of drawing and keeping accounts.
2. The greater detail in which the initial accounts are kept in Bengal, each work being divided into several if not many subsidiary heads, so that a rate may be struck for any portion of a work.

the

3. The fact of every account of money expended in work done or materials prepared being accompanied by detailed measurements or memoranda of quantities.

4. The salaries, travelling and contingent charges of the Department forming an integral part of the general accounts.

5. The completion report and Bill.

10. I will now venture to offer a few remarks and to give my opinion freely on the points of discrepancy.

11. By the Bengal Scheme the divisional Officer (our District Engineer) is supposed to

be relieved of the burden of making up his Subordinate accounts, as all calculations are verified or rectified in the Central Office, but if an Officer really wishes to possess a full knowledge of his Subordinate economy of working he must take abstracts of their accounts and not wait for a month till the Central Office furnishes him with Abstracts of the same; this the Bengal Code itself admits, and this seems to me to do away with much of the relief the District Engineer is supposed to derive from the Central Office of accounts.

✓
Page 122
The Code says Ab-
stracts are to be
sent in but that
is doubtful.

✓
equivalent to our
Station Book.

12. A great objection to the system appears to me to be the mass of writing to be furnished monthly by an Overseer, in addition to a figured Abstract of labor and materials (Form 33) for each work or manufacturer in his subdivision accompanied by detailed measurements of the work done or memoranda of quantities of stock manufactured, he has to send in to the Central Office thro his Divisional Officer.

Officer the following returns:-

Form 34 Account of Purchases.

Form 35 General Abstract of labor made up from all the figured Abstracts (33)

Form 36 General Abstract of materials expended, similarly made up from all the figured Abstracts.

Form 37 Advance and Contractors Account, a species of Account Current.

Form 38. Contingent expense List.

Form 39 Salary and travelling allowance Bill.

Form 40 Pay list of the Establishment employed on his works (Superintendence)

Form 41 Copy of his Cash Book or that of his Cashiers.

Form 42. Account Current.

Form 43 General Abstract of receipts of materials inclusive of those furnished by Contractors.

Form

Since ordered to be furnished half yearly.

Form 14 (Balance return of tools and stores.

13

Complete copies of all these returns are expected to be kept in the Div. Secy Office, and in addition he may be called upon to submit accounts daily, weekly, or at longer intervals, to his divisional Officer for information -

14

It thus appears that if a subordinate has 20 works in progress, he must send in monthly 31 documents to the Central Office alone, besides what he may have to furnish to his divisional Officer, and this must tend to make him far more of an Office man and less of an out-of-door worker than is desirable, we know how difficult it is even now with our simple accounts to keep Overseers punctual, and it must be observed, that whilst in Bengal an Overseer is employed entirely on a few works in one station, our Subordinates have to look after numerous works scattered over one or more taluqs -

15

Keeping the Stock account in the manner it is kept by the Bengal system.

(Bengal Code Page 121 Para. 2.)

system appears unavoidable if it be kept
by the Central Office at all, it would be
impossible without excessive multiplica-
tion of accounts to have a distinct rate
for each work, and on this point I should
call your attention to Paras. 60. 61. 62. 63. 64.
65. 66. 67 of a Major Strachys report where
the objections urged against the method
may perhaps be considered disposed of.

16 I confess that I am far
from convinced by what Major Strachy
says, and hold it objectionable that
rates at which materials are charged
should be struck in an Office hun-
dred of miles away, I think also that
if the work of a subordinate be charged
with materials at assumed instead
of real rates, he will become indifferent
to procuring or manufacturing stock
with economy.

17 Again, when the cost of
draft is added to the cost of materials
an average struck, and articles charged
at a uniform rate throughout a District
whether they have been drawn from

18 a fur or made on the spot, all facilities
or otherwise of construction at various
localities are ignored; for example,
a lock built at the extremity of a
Delta say 40 miles from stone and
lime would be represented as costing
exactly the same sum as a similar
work adjacent to the quarries from
which the building materials for the
two locks were extracted, whereas the
cost of construction of the former might
in point of fact be double that of the
latter work, this surely is objectionable.

18 With respect to the draw-
ing and keeping of cash we are far
better situated than they are in Bengal
with them the divisional Officer
on a letter of credit from the Chief
Engineer draws large sums at a
time from the only one or two trea-
suries in existence in the District; keeps
the cash under a guard, and sends money
as it is required to his subordinates under
the charge of Barkandazes; our system
of presenting small cheques at taluq
treasuries and never having more than

than a small sum in cash in hand is
far better being both safer and less expen-
sive -

19 With respect to the second
and third minor points of difference
I hold the Bengal method to be a far
higher and a more correct one than ours
but doubt whether our numerous works
scattered over extensive geographical ranges
could be treated as the few Bengal works
are, works almost entirely concentrated
in three or four Stations of a division.

20. I consider having the
Audit and Account keeping of the
Salaries, travelling allowances and
contingent charges in the hands of
another Department as prevails with
us, a great advantage: nearly all
the retrenchments which complicate
the account keeping in Bengal are
due to the salaries, etc. being an in-
tegrant part of the sums. if for
statistical or comparative purposes
the cost of the salaries, etc., of the whole
or a part of the Department be required
it.

it can in my opinion, be furnished
in the shape of a return far more readily
than in that of an account -

21 The completion Report
and Bill of the Bengal method are
far superior to any thing we have of
the same kind. The Certificate of the
receiving Officer whether a Civilian or a
Military man must needs be a form
but the quantities in this Certificate
are filled in and attested by the
Divisional Officer, and this consti-
tutes a voucher that the work has
actually been done.

22 The Bill itself compares
minutely the cost of the quantities ex-
ecuted with those of the Estimate
item for item and enable one to
see at once on what parts of the
work economy or mismanagement
has obtained. and not only that
but on going back from the Bill
to the monthly subdivisional
Abstracts of expenditure and Rates
from which the Bill has been pro-
pared it is easy to trace out whether
the

Form 58

the saving or excess is in the labor employed or in the materials used.

23 The new form of Bill lately circulated will be a great improvement upon our existing practice, but will still be less complete than the completion Report and Bill above mentioned.

24 In conclusion, with respect to the Bengal system generally I must observe that in my opinion it is as a whole a far higher, more elaborate and more perfect system than ours is, that if fairly carried out it relieves Executives and their Subordinates of all responsibility three months after Cash disbursements, and that it enables the Chief Engineer from data furnished him by the Overseers themselves to put his finger upon any item of a work and say "here has been if not dishonesty, at least ignorance or negligence or waste of materials".

whether

17 whether the system or any part of it can be introduced with advantage in this Presidency where works are many times more numerous and far more scattered than in Bengal. I leave to you to decide, for my own part I think that any radical change of system now that our Officers and Subordinates are getting well acquainted with our present method of accounting is much to be deprecated.

25 Should you however not be of this opinion I take the liberty of suggesting that the introduction of the Roorkhee system be very gradual, that each Executive Agent keep one stock account for the whole of his range and that all the accounts of the Overseers be checked and Abstracted in the District Engineers Office and sent up in the shape of Form 58 to the Central Office where these Abstracts be audited and if necessary Journalized and ledged.

The

The intermediate grade of Executive Agent which we possess here and which does not exist in Bengal, would enable the above arrangement to be effected; these Officers would be relieved of their present laborious duty of framing bills and would be able to transfer the accountants on their establishments to the Office of the District Engineer.

27 As far as cost of Establishment goes, the two systems appear to be on a par, the Central Office of account for the Lower Provinces in Calcutta costs 6000 Rupees a month, of which the journalizing and ledg-ering come to 1000 Rupees the former amount is more than covered by the total of the salaries of all the Accountants employed by our Central Office, our District Engineers and our Executive Officers, but the total of our departmental expenditure for a year being about 50 per cent more than that of the Lower Provinces, comparative equality of

of cost of the two systems is the result.
28-

Finally I suggest the introduction of printed forms on ^{thin} paper in lieu of our present cumbersome written ones; by it much of the labor of Officers Establishments would be saved and a considerable reduction in the postal charges of the Department effected. A large number of Bengal forms with a memorandum of their cost accompany this.

I have the honor to be
Signed, G. Chambers Capt.
District Engineer R. E. Bengal
On Special Duty -

/ True Copy /

H. Bell Esq. Colonel
Chief Engineer

Patna Office of P.W. D.

Chhapra

11th January 1860

9038

From

The Chief Engineer

To

The Chief Secretary
to Government

Sir,

I

Have the honor with reference to the

Order of Government of 19th Dec 1859
No 2523

1st 1860
No 6

Enclosure 1

Copy of letter from
Capt. Chambers
dated 5th Jan 1860

2.

Captain Chambers has explained

to myself and Captain Shaw Stewart the Bengal

System in so clear a manner that there is no

reason for further detaining him at Bellary.

I have therefore instructed him to proceed at

once to Bombay agreeably to the Order.

Copy of letter from
The Chief Engineer
to the Chief Secretary
dated 11th Jan 1860.

1859

Department

Enclosed in a letter from
The Chief Engineer to the Chief
Secretary to Government
dated 11th Jan 1860
No 9038.

9038/10

Copy of a letter

from Captain Chambers

Director Engineer & Technical

on special duty upon

regarding the system of accounts

and the Bengal system of
accounts in the Bengal system of
Government of 1859-60 -
dated 21st Jan 1860.

10-10

C. 2323 above quoted.

3. I beg to submit Copy of the report dated 5th January 1860 of Captain Chambers for present information.

It will be some time before I can submit my own report upon the subject of the Benc, as

Account System as investigated by Captain

Chambers; but this is of no consequence as I have

no intention of presenting any change

in our own System.

Chief Office of M
Sept 1860
11th January 1860

I have the honor to be,
Sir,
Your most obedient servant,

J. L. A. Smith
Chief Engineer

P.H. Co. 10 Jan 1861/62
L: 1000 1/33 800 1/2

John W. Allen 7 1/2
1000 1/33 800 1/2

From the Ch. Co. 1861
1000 1/33 800 1/2

1861 1/33 800 1/2

1861 1/33 800 1/2

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