(1) பக்கங்களின் எண்ணிக்கை 62
(2) புதுக்கித் திருப்பிய நாள் ஜனவரி 1989.
(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம் [illegible]

தமிழ்நாடு ஆவணக் காப்பகம்.

(37)

தமிழ்நாடு அரசு

P. W. D. துறை

அரசாணை எண். / மு. கோப்புத் தாள் எண். 820
அச்சகம் / பலவகை

நாள் : 19-3-1889. 198 .

கே. சாவித்ரி.

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

31 Sheets.

ஆவண. கா-1—18,006—15-6-87.

820/1

19th March 1889, No. 820 W., Public Works.

820

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

Read—the following papers :—

From the Superintending Engineer, I Circle, dated 29th Oct. 1888, No. 482 G.L.
„ „ „ II „ „ 8th Nov. „ „ 336 G.L.
„ „ „ III „ „ 11th Jan. 1889, „ 2270.
„ „ „ IV „ „ 1st Nov. 1888, „ 503 E.W.
„ „ „ V „ „ 20th Dec. „ „ 4182.
„ „ „ VI „ „ 20th Oct. „ „ 1620 T.J.
„ „ „ Periyár Project Works, dated 24th Oct. 1888, No. 992 P.R.
„ Consulting Architect to Government, dated 16th January 1889, No. 1505.
„ Examiner, Public Works Accounts, dated 12th March 1889, No. 324.

Order—dated 19th March 1889, No. 820 W., Public Works.

The papers above recorded are replies to G.O., No. 3148 W., dated 8th October 1888, relative to the necessity of comparing measurement sheets with the measurement books of which they are extracts.

2. There are three points for consideration in the papers—

(1) Whether any comparison of measurement sheets with measurement books is necessary; and, if so, how and when the comparison is to be made.
(2) Whether it is desirable to have different sizes of measurement books.
(3) What check is to be exercised over the accuracy of the calculations.

3. With regard to (1), the Government are of opinion that the matter may be left to the discretion of Executive and Superintending Engineers. It is considered that the check should be carried out in the divisional office and that it will be sufficient if a percentage of the sheets are checked.

4. With respect to (2), the Government think that no change is needed. For any special work a special book may be used.

5. As regards (3), G.O., No. 2161 W., dated 16th July 1888, makes the accountant responsible for checking the accuracy of the calculations in measurement sheets. The Examiner is of opinion that the accountant should be expected to check carefully and completely all sheets of final measurements, *i.e.*, of measurements on which final payments are to be made; and partially or completely as the Executive Engineer may direct such other sheets as the Executive Engineer may require him to check. The Government accept this view.

(True Extract.)

W. G. Baddeley

Captain, R.E.,
Under-Secy. to Govt., P.W.D.

To the Chief Engineer for Irrigation.
To Superintending Engineers.
To the Consulting Architect to Government.
„ Examiner, Public Works Accounts.

Exd. J. Henricus.
Spare Copies

GENERAL.
ACCOUNT.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated March, 19th.

Recd. *Encl.*

G.O., 19th March 1889, No. 820 W.

MARCH.

Measurement Books

Orders on reports from Superintending Engineers relating to the necessity for comparing measurement sheets with the —.

---

820 820/2

No. 225 A.G.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

ACCOUNT.
General.

Simla, the 21st June, 1888.

Responsibilities of Executive Engineers for exercising strict supervision over their cash transactions, and the work of their Subordinates.

RESOLUTION.—A case having recently occurred in which frauds in a Public Works Division were facilitated by lax supervision, and neglect of standing orders, the Government of India takes this occasion of inviting the attention of all disbursing officers to the necessity for exercising strict supervision over their cash and stock transactions and the work of their subordinates.

2. In the case under reference the accountant and the cashier of the division, working in concert, contrived to carry out a series of frauds, described in the following paragraphs, which the most ordinary business precautions would have prevented.

3. Cash was abstracted at different times from the cash chest without the knowledge of the disbursing officer. On being warned of the fact the officer did not count the cash at once but gave the cashier notice: an interval of two hours elapsing between the notice and the actual count. When the count was made, the cash book was not checked and totalled, but figures given by the accountant, who was present of his own motion and not by order, were accepted as the correct balance. These figures were false and were prepared to cover the deficiency of cash which had been stolen.

4. A false entry of a payment purporting to be for labour was made in the cash book, and a claim for cleaning certain articles was passed for a larger number than existed. The figures in the bill had been altered. The bill bore the usual reference to the measurement book, but the responsible officer never made any check to ascertain that the charges and measurements were in accord.

5. A copy of a contractor's bill, the original of which had already been paid, was prepared for a pay order and placed before the disbursing officer as an original bill. The pay order and a cheque for the amount of the false bill were signed without the slightest check being made over the claim.

6. The frauds could not have been successfully carried through had the disburser periodically verified the entries in his cash book; satisfied himself as to the correctness of claims before signing pay orders; or exercised such check over the work of the accountant as is prescribed in Public Works Department Code, Volume I, Chapter III. paragraphs 87 and 145; Chapter XII, paragraphs 79 A, 95 and 145.

7. In connection with this case the Government of India desires to draw attention to the fact that it is considered a part of the duty of the divisional accountant to check the calculations in measurement books, and prove the agreement of results with the quantities entered in the contract certificates or day books. The bills should also be checked with the previous accounts of the contractors. Examiners, when inspecting divisional offices, should see that this duty is attended to.

2

8. Where certified copies of bills are required to be sent with originals, Executive Engineers should be careful to see that the copies are very distinctly marked as such, across every page, and that both the original and copy are submitted to him before the pay order is signed.

The Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab.
The Chief Commissioners, Central Provinces, Burma, Assam, and Coorg.
The Resident at Hyderabad.
The Agents to the Governor-General for Central India, Rajputana, and Biluchistan.
The Superintendent of Port Blair and Chief Commissioner, Andaman and Nicobar Islands.
The Director-General of Telegraphs.
The Inspector-General of Military Works.
The Superintendent of Works, Simla Imperial Circle.
The Accountant-General, Public Works Department.
The Director-General of Railways.
The Director, Persian Telegraph.
The Director, Persian Gulf Telegraph.
The Consulting Engineers to the Government of India for Railways, Calcutta, Lucknow and Central Division.
The Comptroller and Auditor General.
Accountant General Bengal.

ORDER.—Ordered, that the foregoing be communicated to the Local Governments, Administrations and Officers noted in the margin, for information and guidance.

R. C. B. PEMBERTON, Colonel, R.E.,
Secretary to the Government of India.

Order thereon. [illegible] July 88

Communicated to officers of the Public Works Department for information and guidance.

s/ J. O. H.

G. C. Press, Simla.—No. 137 P. W. D. A. G.—25-6-88—1600.

C.E. for I
S. E's
C.A. to G,

8TH OCTOBER 1888, No. 3148 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

READ—the following paper:—

Office note from the Examiner, Public Works Accounts, dated Madras, 27th September 1888, No. 2324.

In para. 3 of G.O., No. 2465 W. of 13th August 1888, Government directed me to submit separately my views regarding the necessity of comparing measurement sheets with the measurement books of which they purport to be extracts, and also regarding individual responsibility for the check in question, in order that the opinions of the Superintending Engineer might be taken.

2. The first question arose out of a remark by the Deputy Examiner in his report on the last inspection of the Tinnevelly division. He remarked that no such comparison was made, on which I observed that, in my opinion, occasional inspection of measurement books was all that was necessary, meaning that systematic comparison of all measurement sheets with the original records in the corresponding measurement book was neither necessary nor practicable.

3. The Executive Engineer, Tinnevelly division, when replying to the inspection report said nothing on the point, but the Executive Engineer, Trichinopoly division, in reply to a similar remark made with reference to the procedure in force in that division in his predecessor's time (when the division was inspected), stated that he thought it necessary to compare every measurement sheet with the measurement book, and that he has always had measurement books forwarded *with* measurement sheets for this purpose. He added that he did not understand what I meant by occasional inspection of measurement books, that measurement books are inspected by Executive Engineers and Sub-divisional officers when checking measurements of works, and that no other inspection would possibly be required.

4. The question then is whether any systematic comparison of sheets with books is necessary, and, if so, how it is to be made. Supposing that it is considered necessary it may apparently be done in two ways, namely, (1) by requiring the measurement book to be sent in every case with the measurement sheet, the plan adopted by the Executive Engineer referred to above, or (2) by carefully filing the measurement sheets in files corresponding with the book from which they are extracted and then systematically comparing the two when the books (on completion) are eventually sent to the Divisional office for final record.

5. As for the first plan, it seems to me that, if measurement books are to be sent in every case, it is mere waste of time to copy out and submit measurement sheets. The object, as I understand it, of sending either one or the other, is to have the means of checking quantities in bills and certificates, and, if the measurement book is sent, the necessary check can be made on the book and the sheet is useless. In G.O., No. 746 W., dated 5th March 1888, Government decided that measurement sheets should be sent to the Divisional office, and I understand this decision to mean that measurement books should not be sent, the intention being to avoid the inconvenience of frequently sending measurement sheets away from the work. If, therefore,

measurement sheets are to be submitted, and if any systematic comparison of measurement sheets with measurement book is considered necessary, it should, I think, be made when the books are finally sent to the Divisional office, the measurement sheets being carefully kept for the purpose.

6. I do not think it can possibly be necessary to compare every sheet with the corresponding original entries in the book; but I think that a small percentage of measurements—principally final measurements—to be selected at random by the Executive Engineer when the books are finally sent in should be compared with the sheets. This and the inspection of measurement book on the work by the Executive Engineer or Sub-divisional officer when checking measurements seem to me all that can be required.

7. In connection with this matter the Superintending Engineer, VI Circle, has raised another question which might as well be considered at the same time—the question of the size of measurement books. He apparently thinks it would be convenient if they were supplied in several sizes, chiefly smaller than that now in use. As to this, I think much depends on the way in which the measurement books are intended to be used. If it is intended that there shall be a separate measurement book for each work, to be sent in on completion and recorded with the accounts of the work, then it would no doubt be advisable to bind the forms up in books of various sizes; but, if the intention is that each officer and subordinate shall have in use one book and one only at one time, using the same book for all works, then there would not, I think, be any advantage in having books of different sizes. It seems probable that the system of having a book for each work would be most suitable in case of subordinates, whereas Executive Engineers and Sub-divisional officers would each have a single book for check measurements. It is for Executive Engineers and Superintending Engineers to say what different sizes of books will be convenient in practice, *i.e.*, how many pages each size should contain.

8. With regard to the question of individual responsibility for check of measurement sheets or measurement books, the Government of India (in Resolution No. 224 A.G., dated 21st June 1888, communicated with G.O., No. 2161 W., dated 16th July 1888) has ruled that the accountant is responsible for checking the details of measurement sheets and for agreement of the resulting quantities with quantities entered in contract certificates. It seems to me very doubtful, however, whether it is possible for an accountant, with his present assistants, to check every calculation in every measurement sheet or book; and it would be well to obtain the opinions of Superintending Engineers on this point. A distinction might perhaps be made between measurements of *bonâ fide* piece-work and measurements of contract work; also between final measurements and other measurements, all the former being checked, but only a small proportion of the latter.

Order—dated 8th October 1888, No. 3148 W., Public Works.

Communicated to Superintending Engineers for favor of their views *in brief terms.*

(True Extract.)

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

To Superintending Engineers.
To the Consulting Architect to Government.
„ Examiner, Public Works Accounts.

Exd. J. Henricus.
Spare Copies

820 820/4

4

GENERAL.
ACCOUNT.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated October, 8th.

Recd. *Encl.*

G.O., 8th Oct. 1888, No. 3148 W.

OCTOBER.

Measurement Books

Office note from the Examiner, Public Works Accounts, reporting on the subject of the necessity of comparing measurement sheets with the —, communicated to Superintending Engineers for their views.

820

820
5

5

No. 1250W d/ 27-4-88
" 3207W " 24-11-87
" 3130W " 19-11-87
" 2355W " 2-9-87
" 3087W " 22-11-86

1888.

P. W. DEPARTMENT.

Current No. 5199

From

The Supdg. Engineer
VI circle

ENCLOS.—3

No. 253 T.N.

Dated 31st May 1888

Received 4th June 1888

SUBJECT.

Submg: for orders replies of the Exec. Engr. to several points requiring explanation in the Notes of Inspection by the Dy: Exr. of the office of the Exec. Engr. – Tinnevelly Dn. as required in G.O. No 1250W of 27th April 1888.

DISPOSAL.

No. 2176C Dated 11th June 1888

To.

C

For favour of remarks.

(Sd) W. L. C. B.
6-6-88
(Sd) J. O. H.
7/6/88
S. W

No. 2465 Wd/13-8-88
" 2161 W . 16-7-88
" 2196 C " 11-6-88
" 1250 W " 27-4-88
" 3207 W . 24-11-87
" 3130 W . 19-11-87
" 2355 W . 2-9-87
" 3087 W " 22-11-86

1888.

P. W. DEPARTMENT

Current No. 10020

From The Exec. Engr. in ch: VI circle

Enclos.—

No. 663 T.N.
Dated 2nd Octr. 1888
Received 5 — do —

Subject.

Requesting to return for reference original letter No 822 d/23-5-88 from the Exec. Engr. Tinnevelly Dn. forwarded with his office No. 253 T.N. d/31-5-88 regarding the several points noticed by the Dy: Exr. during his recent inspection of the Tinnevelly Divn. office ×

Disposal.

No. 3838 C Dated 11th Octr. 1888

A portion of G.O. 2465 W d/13-8-88

× Forwarded, with the Examiner's report. Return requested:

(Sd) W. L. C. Baddeley
Capt. R.E.
Dy. Chief Engineer P.W.D.

(Sd) H. R. M.
10/10/88

JS
19/10

Reports

820/7

OFFICE OF THE SUPERINTENDING ENGINEER,
6th CIRCLE.

620

Trichinopoly 2nd October 1888
Dept 3/4

No. 663 TN

From W. Hughes Esquire
Executive ~~The Superintending~~ Engineer,
in ch: of 6th Circle.

To

The Chief Engineer
P. W. D.

Sir,

ENCLOSURES.

I have the honor to request that you will be good enough to return to me, for reference, the original letter No $\frac{822}{23-5-88}$ from the Executive Engineer, Tinnevelly Division, forwarded with my office No $\frac{253\ T.N.}{31-5-88}$ regarding the several points noticed by the Deputy Examiner during his recent inspection of the Tinnevelly Division Office.

2. The letter will be returned as soon as possible.

I have the honor to be
Sir,
Your most obedt. Servt.
W Hughes
Executive Engineer
in ch: of VI Circle

7

Compd. TK

BA 2465 W/ 13/8/88

SUPDG. ENGINEER'S OFFICE
963 TN
15-10-88
P.W.D.

No. 3838 C d/ 11th Octr. 1888

Forwarded, with the Examiner's report. Return requested.

W. Batchelor
Capt. R.E.
Dy. Ch. Engr. P.W.D.

10/10/88

No/ 703 TN

Returned.

W. Hughes
Exe: Engineer
in ch: of the VI Circle
16/10/88.
W.D. 18th.

P. W. D. 6TH CIRCLE.

From
The ~~Superintending~~ Executive Engineer,
in charge of 6th Circle.

To
The Chief Engineer
P.W.D.
Madras

No. 663 TN

SECRETARY TO GOVERNMENT
20 OCT. 88
P.W. DEPARTMENT, MADRAS

Dated 2d
d/d 3d
Received } October 1888

Enclosure. Nil

Requesting to return for reference original letter No. 822/23-6-88 from the Executive Engineer, Tinnevelly Division, forwarded with this office No. 253 TN/31-5-88 regarding the several points noticed by the Dy Examiner during his recent inspection of the Tinnevelly Division Office.

C

Recorded
20-10-88

N.B.
Enclosure to be attached to the Draft

Forwarded

No. 3148 W d/ 8-10-88
" 2465 W " 13-8-88
" 4024 C " 22-10-88
" 3838 C " 11-10-86
" 2196 C " 11-6-86
" 2161 W " 16-7-88
" 1250 W " 27-4-88
" 3207 W " 24-11-87
" 3130 W " 19-11-87
" 2355 W " 2-9-87
" 3087 W " 22-11-86

No. 267 C.

Government of Madras.

PUBLIC WORKS DEPARTMENT,
Chepák, 18 January 1889.

OFFICE NOTE.

From W.

To C.

From the S.E. I Circle No. 482/GL d/ 29-10-88
" " II " 336/GL d/ 8-11-88
" " III " 2270 d/ 11-1-89
" " IV " 503/GW d/ 1-11-88
" " V " 4182 d/ 10-12-88
" " VI " 1620/T.J d/ 20-10-88
" Periyar Project 992/P.R. d/ 24-10-88
Cons. Archt. to Govt 1505 d/ 16-1-89

Relative to necessity for comparing measurement sheets with measurement books —

For any further remarks you may desire to offer —

D 14/1 ~~[illegible]~~

15/1/89

18/1/89

2/1

820/10

No. 482 G.L.

820

FROM,
Lt Col. R. R. E. Drake Brockman R.E.
THE SUPERINTENDING ENGINEER
FIRST CIRCLE,

TO,
THE CHIEF ENGINEER
P.W. Department
~~FOR IRRIGATION.~~

DOWLAISHWARAM, 29th October 1888

SIR,

With reference to G.O. No. 3148 W. dated 8th October 1888 asking for my views with regard to comparing measurement sheets with measurement books, I have the honor to state as follows:—

1. As all work is checked by the disbursing Officer before payment and this is done from the measurement sheet which accompanies the Bill, there can be no difficulty in calling for the measurement book from the Subordinate at the time of inspection & making the necessary comparison at that time — No alteration of the measurement book in size will therefore be required —

2. I consider that final measurements only need be carefully checked

7.11.88

by the Accountant, intermediate ones being checked in the more important items only.

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

Lt Col RE
Supt Engineer 1st Circle

JK

7.11.88.

19 JAN 88

Encl. 8

FROM,

Lieut-Col A.R.E. Drake-Brockman R.E.

~~THE~~ SUPERINTENDING ENGINEER

FIRST CIRCLE.

TO,

THE CHIEF ENGINEER

~~FOR IRRIGATION.~~ D.P.W.

DATED 29th
DESPTCHED 30th } October 1888.
RECEIVED

SECRETARY TO GOVERNMENT
3 NOV 88
P.W. DEPARTMENT, MADRAS

No. 482 G.L.

ENCLOSURES.

SUBJECT.

Measurement Books.

Gives his views with regard to comparing measurement sheets with.

Compile
5.11.88
BW

No 336 G.L.

820
12

Superintending Engineer's Office
2nd Circle
8th November 1888

From

J. Hannan Esquire,
Superintending Engineer,
II Circle.

To

The Chief Engineer,
Public Works Department,
Madras.

820

Sir,

With reference to G.O. $\frac{3148 W}{8.10.88}$, I have the honor to state that I concur with para 6 of the Examiner's Office note.

2. With reference to para 7 of his note, I consider the size of the present measurement books convenient.

3. As regards para 8, I am of opinion that the arithmetical accuracy of all measurement sheets should be checked by the Accountant, or one of his assistants.

I have the honor to be
Sir
Your Most obedt Servt
J. Hannan
Superintending Engineer
II Circle

12

7.11.88.

EXAMINER
No.
10 JAN 1889
P. W. ACCOUNTS

2424/89

From,

The Suptg. Engineer,
2nd Circle.

To,

The Chief Engineer,
P. W. D.

Dated 8th Novr 1888.

NO 88

No. 336 G.L.

Measurement Books.
Furnishing views on the Office note from the Examiner reporting on the subject of the necessity of comparing measurement sheets with the ——

Compile
13.11.88

820
820
14

No. 2270

Superintending Engineer's Office,
3rd Circle
Bellary 11th January 1889.

From Col. H Smalley R E
THE SUPERINTENDING ENGINEER,
IIIrd CIRCLE.

To
THE Chief Engineer
P W Department
Madras

Enclosures.

Sir,

With reference to CO No 3148W dated 8th October 1888, I have the honor to report that it seems to me necessary that systematic comparison of measurement sheets with measurement books is necessary and that this can best be effected by filing the sheets and comparing them with the books when eventually sent to the Divisional Office for final record which should be on the final measurement of a work and before the final bill is paid. I should think if the totals on each sheet were found to correspond with the totals on the page of the book from which

14

they were extracted no further sheets would be required and the sheets having served their purpose could then be destroyed.

2. I think it would be best to have a separate book for each work for the actual measurements. The size must depend on the magnitude of each work from a few pages up to the size now in use.

3. Executive Engineers in this Circle are unanimously of opinion that their Accountants and Assistants are not able to check every calculation of every measurement sheet and book; I think myself all final measurements should be checked.

I have the honor to be
Sir
Your most Obedient Servant

H Smalley Col R.E.

Superintg Engineer 3rd Circle

820
15

15

EXAMINED
No. 43
19 JAN 1889
ENCLOSURES
W. ACCOUNTS

Encl. 6
P.W. 302 ✓
24/1/89

From

The Superintending Engineer,
IIIrd Circle.

To

The Chief Engineer
P.W. Department
Madras

Dated 11th } January 1889.
Received 14 }

Enclosures.

SECRETARY TO GOVERNMENT,
13 JAN. 89
P.W. DEPARTMENT, MADRAS.

No. 2270.

Measurement Books

Reporting on the subject of the necessity of comparing measurement sheets with the ——

Circulate
mem
14.1.89
DW

82P Sup. Engineer's Office 4th circle
Coimbatore, 1st Novr 1888.

No. 503
EW

82P
16

From

J.W. Martin Esq:,
Sup. Engineer, 4th circle.

To

The Chief Engineer,
P.W. Department.

Sir,

In reply to G.O., dated 8th October 1888, No. 3148 W, in the matter of measurement books, I have the honor to state I consider it is not necessary to compare measurement sheets with measurement book. The measurement sheet is practically, a true copy of the measurement book, and therefore it is impossible to suppose that cases would often, occur when, a sub-
16 ,ordinate would send, a measure-
16 ment sheet, designedly not, correspond
ing with his measurement book for
it

it will always be easy to discover an irregularity of the kind by referring to the measurement book

2. With regard to inspecting measurement books, I agree with the opinion of the Examiner given in para 6 of his Notes, and I consider that inspection beyond what he suggests is not necessary.

3. Regarding the size of measurement books, I think the books now in use, answer very well. I consider it is not desirable that a subordinate should keep a measurement book for each work under his charge, except in the case of large works, for it is troublesome to carry a large number of books in camp without the risk of some being lost. A subordinate of the Overseer grade is allowed only one lascar. This man has quite enough to do at present; so it is not advisable to add to his work the care of a number

820
17

number of measurement books.

EDP 4. In regard to the question of responsibility for check of measurement sheets, I think the Accountant and his assistants can and should check them. By check I do not mean that every item of a measurement sheet should be checked, but I consider that items here and there should be examined and of course the totals should be verified. This seems to be all the Government of India require in the resolution referred to by the Examiner.

EDP

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

Executive Engineer for
Supg. Engineer.

17

EXAMINED
No. 423
19 JAN 1889
W. ACCOUNTS

Encls 5

2424/89

From

The Supdt. Engineer,
Fourth circle

Dated 1st November 1888

SECRETARY TO GOVERNMENT
– 3 NOV.
P. W. DEPARTMENT, MADRAS

No: 503
Encl

Measurement Books:-

Giving his opinion on the subject of the necessity of comparing measurement sheets with —.

Compiled
5.11.88

No. 4182 820

820
18

SUPERINTENDING ENGINEER'S OFFICE,
V Circle, Madras,
Chepâk, 20th December 1888.

From
Colonel W. H. Burton R.E.
SUPERINTENDING ENGINEER, V CIRCLE,

To
THE Chief Engineer
P. W. Department.

Enclosures.

SIR,

With reference to G.O. No: 3148 W dated 8th October 1888, I have the honor to state that for every large new work & for any particular group of small works, a separate measurement book [Form No. 19] should be maintained by the D.P.W. Subordinate under whose immediate supervision the work or group of works may be; and when full, then only, should a second volume be commenced by the same. Certainly two or more (see para 4 on form M. 19) should not be kept going simultaneously.

Para 5 of the notes at back of Form M. 19 says "The measurement book must be "looked upon as an important record... kept up "up as Complete records" In order to effect this very essential object not only should the book Contain measurement of work actually taken by the D.P.W. subordinate to be afterwards checked and initialled by the Executive Engineer but should be as much as possible a current history of the work during its progress from sanction of the estimate until completion report is submitted; and to render it a "complete record" the subordinate shd. enter in addition to the mere bald measurements

1. Name and place of work

2. Particulars of sanction given to estimate as date, authority and amount &ca.

3. How and by whom work is authorized to be carried on whether by day work or by Contract or partly by one partly by other & name of Contractor or Contractors.

4. Dates and hours of visits made to the work by Chief Engineer,
" Superintending Engineer
" Executive Engineer
" Sub Dl. Officer

and by upper subordinate himself.

Any remarks found necessary by the Inspecting Officer would be entered by such Inspecting Officer.

5. 5. Any accident failure or other peculiarity Connected with the work or foundations, to which it is necessary to attract notice of the Executive Engineer &ca. Diagrams of foundations & sections particularly wrong though are all valuable records.

6 Periodically (as daily if a D.P.W. subordinate has but one work to look after) and methodically to record No. of work people employed from time to time, so far as he sees and of Materials delivered: if work is done by day work he would then make some such entry as "See daily report on Form M-5": if work is being done by contract and he sees such work may be twice a week then he should enter in measurement book labor employed and materials brought on

If work is done by contract

on those occasions. For a large work this measurement book must be kept accessible at all times near the work; and for small groups of work similarly at hand and not miles away for days or even weeks together in the Divisional Accountant's desk. To enable the accountant to check calculations — measurement sheets (ie Extracts from Measurement book Form M 19) must be sent or better still brought in and whenever the subordinate in charge comes to Executive Engineer's Office or to sub Divl Office he should bring his measurement book with him and the measurement sheets can be then and there compared and initialled by the Executive Engineer and the measurement book can be carried away, again initialled as "having been compared with measurement sheets".

This is almost the practice in North Arcot Division although not mentioned as such by Examiner in his Office Note printed in above G.O.

As to size necessary it must be

be that of foolscap paper containing about one quire or 91 pages & bound in marble paper; each subordinate could have a handy travelling cover of soft leather for convenience & security of book against damage.

I have the honor to be

Sir,

Your most obedient servant

W H Burton. Colonel R.E.

Superintending Engineer V circle

EXAMINED
No.
19 JAN 1889
W. ACCOUNTS

1424/89

From

THE SUPERINTENDING ENGINEER,

V Circle,

To

THE Chief Engineer
P W Departt.

Dated 10 }
Recd. } December 1888.

ENCLOSURES.

No. 4182

Measurement Book.
Reporting about maintaining on works by the D. P. W. Subordinates

Compile
WCR
13.12.88

DW

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OFFICE OF THE SUPERINTENDING ENGINEER,
6TH CIRCLE.

Trichinopoly. 20' october 1888.
Decr 20'

No. 1621 T

From W. Hughes Esq.
Executive ~~The Superintending~~ Engineer, in ch:
6th Circle.

To

The Chief Engineer
P. W. D.

Sir,

ENCLOSURES.

With reference to G. O. No. 3148 W dated 8' october 1888, I have the honor to submit my views regarding measurement books.

Calcutta

(1). It is quite impracticable in ordinary Divisions to have the measurement books sent to the Division Office with the vouchers. If it was found possible in Trichinopoly Division it must at least have been inconvenient to subordinates and was only possible at all because there were no Sub Divisions

Yes

(2) It is convenient to have measurement books all of one size and unnecessary to have

different sizes. The books now in use are suitable in size and form.

(3) A separate measurement book cannot be kept for each work. If they were so kept 400 books would be in use in the Madura Division alone. When desired separate books can be kept for the more important works but generally if a subordinate is to keep more than one book, there should be only one for each class of works, Irrigation, Ordinary, Tank Restoration, Provincial &c.

Certainly not
it seems un-
[illegible]
[illegible]

(4). The measurement sheets are checked arithmetically in whatever office the bills are paid. They are also supposed to be (but I think scarcely can be) checked also in the Division office after payment by Sub-Division officers. It would be no use making a rule that final measurements sent on with final bills paid by Sub-Division officers should be specially checked in Division offices since such measurements are generally for only a portion of the work done previous measurements being added or deducted in lump. It would be best to have the Accountant responsible for exercising such check as is possible.

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[illegible] only need
an occasional
check.

(5) I see no object in making a distinction between measurements of piece work and contract work.

New Method
[illegible]

I have the honor to be
Sir
Your most obedient servant.
J. Hughes
Executive Engineer
in ch: Madura.

22

Enclo 3.
~~4688~~
2424/89

No. 49
19 JAN 1889
W. ACCOUNTS

P. W. D. 6TH CIRCLE.

From

The ~~Superintending~~ Executive Engineer,
in Charge 6th Circle.
Trichinopoly

To

The Chief Engineer
P.W.D.
Madras.

No. 1620 P.W.

Dated 20.
Received 20 } October 1888

SECRETARY TO GOVERNMENT P.W. DEPARTMENT MADRAS
22 OCT. 88

Enclosure. Nil

Measurement Books

Submitting views regarding the

Compiled 22.10.88 BW

No. 992 P.R. Office of the Supg Engr,
Periyar Project Works,
camp Natchukulam
24 October 1888.

820/23

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D/27.

From

Col J. Pennycuick R.E.,
Superintending Engineer,
Periyar Project Works.

To

The Chief Engineer,
Public Works Deptt.

Sir,

With reference to G.O. No 3148 W of 8 Instant, I have the honour to state that in my opinion no orders are required upon the subject, which is one which should be left entirely to the discretion of Executive and Superintending Engineers.

2. It might be convenient to have different sizes of measurement books, provided that the size to be used in any particular case was left absolutely to the discretion of the Executive Engineer and not fixed by any

any rule; but the practical importance of this matter appears very small.

3. With regard to para 8 of the Examiners note. I consider that under a proper system of accounts the accountant should have nothing to do with such matters, but under the present system there is no reason why he should not be employed in making such arithmetical calculations as the Executive Engineer may require; the ultimate responsibility must rest with the latter.

I have the honor to be,
Sir,
your most obdt Servt,

J. Pennycuick Col R.E.
Supg Engineer,
Periyar Project Work.

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Encl 62

Public ~~1130~~ 24/1/89

EXAMINED
No. 43
19 JAN 1889
P.W. ACCOUNTS

From,

The Supg Engineer
Periyar Project

To,

The Chief Engineer
P. W. D.

No 992 P.R

Dated 24th October 1888

1/11/88

SECRETARY TO GOVERNMENT
1 NOV. 88
P.W. DEPARTMENT, MADRAS.

Measurement Books

Offers opinion in regard to sizes of.

Compile
1.11.88

P. W. D.

820
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62P Consulting Architect's Office,
Chepauk, Madras,
16th January 1889.

No. 1505.

From

J. W. Brassington, Esq.,
Consulting Architect
to the Government of Madras,

To

The Chief Engineer
Public Works Department

Sir,

Enclosure.

With reference to G. O. No 3148 W. dated 8th October 1888, I have the honor to state that measurement sheets accompany the bills submitted by Sub Divisional Officers with which they are checked item by item before payment is made by the Accountant who is no doubt responsible for their arithmetical accuracy. The measurement books, are sent to this Office on completion of the work or works to which they appertain only for record.

2. I agree with the proposals of the

25

the Examiner referred to in para 6 of his note.

3. The size of books need not be altered as the books now in use answer every purpose.

I have the honour to be
Sir
Your Most Obedient Servant:

J M Brassington
Consulting Architect
to Government

8 20 820/26

Enclo 1

~~Pllb 455~~ 24/1/89

EXAMINED

19 JAN [illegible]

Public Works Department

From

The Consulting Architect
to the Government of Madras,

To

The Chief Engineer
P. W. D

No. 1505

Dated 16" January 1889.
Received

SECRETARY TO GOVERNMENT
19 JAN. 89
P.W. DEPARTMENT MADRAS

No. of Enclosures.

Subject.

Giving opinion as to the necessity of comparing measurement sheets with the measurement Books.

No. 267 C.

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Government of Madras.

PUBLIC WORKS DEPARTMENT,

Chepâk, 18th January 1889.

OFFICE NOTE.

From W

To C

From the S. E. I. Circle No. $\frac{482}{G.L}$ d/ 29-10-88
" " " II Circle " $\frac{336}{G.L}$ d/ 6-11-88
" " " III Circle " 2270 d/ 11-1-89
" " " IV Circle " $\frac{583}{E.W}$ d/ 1-11-88
" " " V. Circle 4182 d/ 10-12-88
" " " VI Circle $\frac{1620}{T.J}$ d/ 20-10-88
" " " Periyar Project: $\frac{992}{P.R}$ d/ 24-10-88
" " Consg: Archt: to Govt. 1505 d/ 16-1-89

Relative to necessity for comparing measurement sheets with measurement books.

For any further remarks you may desire to offer.

18.1.89

18/1/89
W

No. 324 of 12 March 1889.
Rec. 8.

27

To W.

There are three questions on which a decision

EXAMINED
No. 13
19 JAN 1899
[illegible]
W. ACCOUNTS

is required in connection with these replies of Superintending Engineers.

(a) Whether any comparison of measurement sheets with measurement books is necessary, and if so, how and when is the comparison to be made.

(b) Is it desirable to have different sizes of measurement books i.e. books containing different numbers of pages, in lieu of the one size now supplied, and if so what sizes.

(c) What check is to be exercised over the accuracy of the calculations and results recorded in measurement sheets.

2. As regards (a) the check, if any, may be exercised either (I) by the Executive Engineer on inspection of works or (2) by the accountant in the divisional office, and in either case the check may vary from (I) checking all, though (2) checking a percentage more or less to (3) checking none. The opinions of the Supg. Engineers appear to be as follows; the Supg. Engineer Ist. Circle would have the check applied on occasions of inspection, and presumably, though he does not say so, to a reasonable proportion of sheets only; Supg. Engineers 2nd. and 4th. circles and the Consulting Architect would check a small percentage in the division offices; the Supg. Engineer 3rd. Circle would apparently check them all in the divisional office; the Supg. Engineer Periyar Project would leave it to the discretion of the Executive Engineer and Supg. Engineer; the Supg. Engineer 6th. Circle apparently expresses no opinion on this point; and the Supg. Engineer 5th. Circle would apparently have some system quite different from that prescribed.

3. The matter hardly concerns me except in so far as the responsibility of the accountant is involved, which will only be, if it is decided that the check, if any, should be exercised in the divisional office; but I think it is only fair that the accountant should know what his responsibility is, that is to say whether he, in the divisional office, is to check all, or none, or such only as he may be directed by the Executive Engineer to check. For the reason given by the officiating Supg. Engineer 4th. Circle, I think it would be a great waste of time for the accountant to check them all as some officers think he should, or to check more than a very small percentage, principally ~~possibly~~ final measurements to be indicated at —

random by the Executive Engineer;but those that he does check should have evidence of his scrutiny recorded on them,and in the absence of any special instruction of the Executive Engineer to the contrary his check of individual sheets might ordinarily be limited to seeing that the total of each sheet agrees with the total of the corresponding page in the book,as suggested by the Supg.Engineer 3rd.Circle.

4. As regards question (b), which was raised by Mr.Rundall when Supg.Engineer 2nd.Circle,the Supg. Engineers Ist.,2nd.,4th.and 6th. Circles and the Consulting Architect, consider that no alteration is necessary,whilst the Supg.Engineers 3rd. Circle and Periyar Project would have different sizes,but do not specify what sizes they consider desirable. The opinion expressed by the Supg.Engineer 5th.Circle apparently has no relation to the prescribed system. The question does not concern me. I have only to see that a stock of the prescribed size or sizes is kept.

5. With regard to question (c) the Supg.Engineer Ist.Circle would have the accountant check carefully all sheets of final measurements,and important items of intermediate sheets: the Supg.Engineer 2nd.Circle would have him check them all: the Supg.Engineer 3rd.Circle would check only sheets of final

measurements: the Supg.Engineer 4th. Circle would check all sheets,but would only check a few items in each sheet,and verify the totals of them all: the Supg.Engineer 6th.Circle would apply no check in the divisional office: the Supg.Engineer Periyar would hold the Executive Engineer responsible requiring the accountant only to assist him by making such calculations as he may require.

6. I agree with the Supg.Engineer 3rd.Circle that,at any rate in most divisions of this presidency, it is not practicable for the accountant and his assistants to check the details of every measurement sheet as required by the Government of India in their resolution communicated with G.O.No.2I6I W,dated I6th.July I888;and I think it is clear that if any discretion is to be exercised,it should be exercised by the Executive Engineer and not by the accountant. I would therefore suggest that the accountant should be expected to check carefully and completely all sheets of final measurements,i.e. of sheets of final measurements on which final payments are to be made,and partially or completely as the Executive Engineer may direct,such other sheets as the Executive Engineer may require him to check,the former as a matter of course,and the latter under such

instructions as he may receive from time to time. I think there should be no room for misunderstanding as to what the accountant is expected to do habitually as a matter of course without special instructions from the Executive Engineer or from anybody else. In an accountant's position, he can hardly be allowed the latitude and discretion that may well be allowed to an Executive Engineer.

P.W. No. 2424

Encl. 8

Recd 14. 3. 89

C.

No 3087 W d/ 22. 11. 86.
" 3130 W d/ 19. 11. 87
" 3207 W d/ 24. 11 87
" 1250 W d/ 27. 4. 88
" 2465 W d/ 13. 8. 88
" 2196 C d/ 11. 6. 88
" 2161 W d/ 16. 7. 88
" 3838 C d/ 11. 10. 88
" 4024 C d/ 22. 10 88
" 3148 W d/ 8. 10. 88
" 267 C d/ 18. 1. 89.

820 W

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No 820 W

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Genl Acct

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 19 March/89

READ the following

From the Supg. Engr. I Circle.	A.G. No. 482 G. L. d/ 29 Octr 1888
——— Do ——— II Circle.	" No. 336 G. L. d/ 8 Novr 1888
——— Do ——— III Circle.	" No. 2270 d/ 11 Jany 1889
——— Do ——— IV Circle.	" No. 503 Irr. d/ 1 Novr 1888
——— Do ——— V Circle.	" No. 4182 d/ 20 Decr. 1888
——— Do ——— VI Circle.	" No. 1620 T. J. d/ 20 Octr. 1888
——— Do ——— P. P. Works.	" No. 992 P.R. d/ 24 Octr 1888
From the Consg. Architects.	" No. 1505 d/ 16 Jany 1889.
From the Examiner P.W. Accts	" No. 324 d/ 12 March 1889.

The papers above recorded are replies to G.O. No 3148 W of 8 Octr 1888, relative to the necessity of comparing measurement sheets with the measurement books of which they are extracts.

2. There are three points for consideration in the papers:

(1) whether any comparison of measurement sheets with measurement books is necessary, and if so, how and when the comparison is to be made.

(2) whether it is desirable to have different sizes of measurement books.

Hcl 16 Mar

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(3)

(3) what check is to be exercised over the accuracy of the calculations.

3. With regard to (1) the Govt. are of opinion that the matter may be left to the discretion of Executive and Supdg. Engineers. It is considered that the check should be carried out in the divisional office, and that it will be sufficient if a percentage of the sheets are checked.

4. With respect to (2) the Govt. think that no change is needed. For any special work a special book may be used.

5. As regards (3), G.O. No. 2161 wd/ 16th July 1888 makes the Accountant responsible for checking the accuracy of the calculations in measurement sheets. The Examiner is of opinion that the Accountant should be expected to check carefully and completely all sheets of final measurement, i.e. of measurements on which final payments are to be made, and partially or completely, as the Ex. Engineer may direct such other sheets as the Ex. Engr. may require him to check. The Govt: accept this view.

16.3.89

16/3/89

To the C.E. for Irrig.
" Supg. Engrs
" C.A. to Govt
" Exr. M.O.s

D
24/3

Govt. of {1889} Madras.

PUBLIC WORKS.

19/3

Dated

Recd. Encl.

G.O. 19 Mar 1889 No. 820 W

Measurement books

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Orders on reports from Supdg. Engineers relating to the [illegible] necessity for comparing measurement sheets with the

(31)

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