(1) பக்கங்களின் எண்ணிக்கை 30

(2) புதுக்கித் திருப்பிய நாள் 3/89

(3) ஆதாரங்குறிப்பவரி சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

(110)

பொது துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	399	அச்சகம் பலவகை
நாள் : 12.2.89		198.

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

(4 sheets + 1)

ஆவண. கா-1—18,006—15-6-87.

(15)

399

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General Account.

READ—the following papers :—

Notes of Inspection by H. RAINIER, Esq., of the Office of the Executive Engineer, Buckingham Canal Division, from 12th to 15th September 1887.

Mr. C. Vincent, Executive Engineer, 3rd grade, assumed charge from Mr. F. J. Wilson, Executive Engineer, 4th grade, on the 25th February 1887. M. V. Sambasiva Iyer, Accountant, 5th grade, took over charge of the accounts from C. Bhoojunga Row, Accountant, 4th grade, on the 9th July 1887. Both the Executive Engineer and the Accountant were present at the inspection. The office was last inspected by an Account officer in September 1886 (*vide* papers printed with G.O., No. 2721 W., of 16th October 1886).

2. The canal is now divided into the following sub-divisions :—

I. The *Southern sub-division*, of which Conductor Power, Sub-Engineer, has charge, extends from the southern end of the canal to the 77th mile therefrom at Ennore.

II. The *Pulicat sub-division*, of which Conductor J. Lalor, Sub-Engineer, has charge, extends from the 77th mile at Ennore to the 156th mile at Kundaléru.

III. The *Iskapálle sub-division* extends from the 156th mile at Kundaléru to the 205th mile at Thumalapenta.

IV. The *Northern sub-division* extends from the 205th mile at Thumalapenta to the 262nd mile at Pedda Ganjam, which is the terminus of the canal.

The Iskápalle and northern sub-divisions are at present under Mr. Bond, Sub-Engineer. Every Sub-divisional officer has a drawing account, except the Pulicat Sub-divisional officer, who has an imprest.

3. Sub-divisional officers who have drawing accounts make payments to contractors, piece-workers and suppliers of materials, if or whenever the bill dues not exceed—

in the case of Mr. Bond ... ... Rs. 500
do. of Mr. Power ... ... „ 200

All bills over this limit are sent to the Executive Engineer for payment. The disbursements of Mr. Lalor are confined to the payment of any charges not exceeding the amount of the imprest at his disposal.

4. The following imprests are held :—

Recouped by	Name of holder.	Rank and capacity.	Amount of Imprest.
			Rs.
Executive Engineer ...	Conductor J. Lalor ...	Sub-Engineer, 2nd grade, Pulicat Sub-divisional officer	300
Do. ...	Mr. R. Enright	Supervisor, 2nd grade ...	100
Southern Sub-divisional officer	Mr. C. H. Morton ...	Overseer, 1st grade, Southern sub-division	150
Northern Sub-divisional officer	D. Venkatasawmy Naidu.	Overseer, 2nd grade, Northern sub-division	300
Southern Sub-divisional officer	P. Narayanasawmy Naidu.	Overseer, 2nd grade, Southern sub-division	300

5. The balance of the Executive Engineer's drawing account on the 1st September 1887 was proved correct. The pass books were checked and found in order. The cheque books in the Executive Engineer's office are in order.

6. The Executive Engineer's cash book was checked for one month and the cash abstract book was examined.

7. Sub-divisional cash accounts, rendered three times a month by each sub-division, come to the Executive Engineer punctually enough, but are not half supported by vouchers, the alleged reason being that it is difficult to get acknowledgment of remittances from piece-workers and suppliers, who are often far from any post office.

8. The cash accounts of two sub-divisions for one month were audited. The imprest accounts recouped during July to August inclusive were also audited.

9. The following remarks are offered.

10. One of the most important duties of the divisional accountant is that of personally checking every cash account. When this duty is regularly and thoroughly undertaken, the accountant as a matter of course initials each voucher audited, and states against his initial the date of the audit. Though apparently but a small matter, this, which is the only outward and visible indication of the accountant having done such important duty, and of his having accepted responsibility for it, is really most imperative. It is hoped that the accountant of this division will not fail in this respect again. From the appearance of the cash accounts it is impossible to say how far he has checked them.

11. The certificate prescribed in form No. M 3 is not given by the accountant at the foot of the sub-divisional extracts after the posting of the items into the cash abstract book is completed.

12. The accountant had initialled the divisional cash book as having posted all items up to date into the cash abstract book, but on examining the latter it was found that all the items had not been posted there.

13. The collections in the shape of navigation license fees have much increased. The following table shows the fees and tolls collected during the last three years:—

Years.	License fees.	Wharfage fees.	Toll fees.
	RS.	RS.	RS.
1884-85	32,172	6,938	4,818
1885-86	32,962	13,547	4,977
1886-87	38,013	12,764	6,118

14. As most licenses are granted in Madras, the duty of collecting such fees has been entrusted to the Southern Sub-divisional officer Mr. Power. The Executive Engineer also grants licenses.

15. The constant examination of a boat's license or toll ticket wherever the boat goes, and the register which is maintained by the Executive Engineer of all licenses granted, as well as the system of immediately paying into treasury all cash receipts from these sources, and frequent rendering to Executive Engineer copies of cash accounts, make the check applicable perhaps all that can be desired.

16. The cash accounts from these fee and toll collectors are rendered regularly, and two of them on examination were found in order.

17. As regards wharfage, however, the collections at two out of the three wharfs are incapable of any check in the Executive Engineer's office.

18. The three wharfs are at (1) Madras basin, (2) Muttukur, (3) Kotapatam. Seven miles north of Madras there is a registration station on the canal, and by comparing the boats registered there with those registered at the basin, the latter are subjected to a useful check as regards wharfage; but there are no such means of verifying wharfage at Muttukur and Kotapatam, and the personal activity of the Sub-divisional officers on the canal is considered by the Executive Engineer such as to secure the requisite regularity.

399

19. One clerk of the Executive Engineer's office (a smart man) is specially and solely engaged on the checking of the above accounts, which, however, require the accountant's attention too.

20. Rupees 534 paid by cheque to Royal Reddy, piece-worker, was entered in the cash book as paid on the 13th June 1887, though it did not reach the payee until the 30th idem. The amount was for work measured on the 21st May 1887. The cheque was still uncashed on the 1st September 1887.

21. Salaries of Canal Maintenance establishment in the Ramapatam sub-division, for May and June 1887, were paid all together on the 9th July 1887.

22. Vouchers for petty payments under establishment, contingencies, are destroyed as soon as the contingent bills are audited by the Examiner. The certificate at the foot of the form of bill (Form No. 155) suggests that vouchers should be defaced, not destroyed.

23. Almost all the work in this division is done by piece-workers. In August there were 33 major and 14 minor works in progress. Of works in March and April 1887, the unvouched outlay was audited, work abstracts being checked and initial accounts examined, especially as regards measurements. Materials at site of works were carefully inquired into and accounts of the same thoroughly examined.

24. The following notes are submitted.

25. *Repairing scour holes, &c., at Gundlacamma north flood-gate.*—Labor employed from 1st to 9th May 1887 was paid on 8th June 1887. The ten-day report for above period was not received in the Executive Engineer's office until the 16th July 1887, and the work done was first shown as a liability in July's work abstract (part I) instead of in May's.

26. Labor from 29th to 30th April 1887 was paid for on the 15th June 1887.

27. *Improvements to canal from 177th to 183rd miles.*—Maistry's pay for May was paid in July 1887 and was not shown as a liability till then.

28. *Repairing Musi flood-gate.*—Labor from 26th to 28th April paid on 15th June 1887, the ten-day report being received on 16th July 1887, and the liability appearing first in July's accounts. The ten-day report, 11th to 27th May, was received on 16th July 1887.

29. *Repairing Paleru flood-gate.*—Labor from 19th to 25th April 1887 paid on the 15th June 1887. The ten-day report was received by Executive Engineer on 16th July 1887, and posted in July's work abstract, part I.

30. *Constructing two outlets at 123rd mile.*—Labor from 1st to 16th April 1887 was paid on the 8th June 1887. The ten-day report was received by the Executive Engineer on the 16th July 1887, and shown in part I of the work abstract for July 1887.

31. *Constructing two outlets at the 132nd mile.*—Labor from 1st to 12th April 1887 was paid on the 15th June 1887. The ten-day report was received by the Executive Engineer on the 16th July 1887, and shown in July's work abstract, part I.

32. *Diversion of canal, 15th to 31st mile.*—Work measured on the 26th July was not paid for till 20th August 1887.

33. *Coromandel to Tethipett diversion.*—Work measured on the 13th June was paid for on the 5th July 1887.

34. *Constructing ferry boats.*—Work finally measured on 11th March 1887 was paid for on 14th July 1887. The work was not credited to the contractor in his ledger until July 1887. The Executive Engineer says the contractor's account was in dispute, hence the delay.

35. *Maintenance of canal, Adyar to Mercanam.*—Labor, 11th to 20th April, was paid for on 20th June 1887.

36. *Receipts from Plantations.*—Rupees 458-15-5, being the value of timber cleared from certain land belonging to the canal, is entered in the adjustment book as made over to contractor Veerasawmy Iyengar in August 1886, though the contractors' ledger account was not debited therefor until October and November 1886.

37. *Maintaining Buckingham canal from Mercanam to Commamur canal.*—For labor employed from 11th to 20th February 1887, the ten-day report reached the Divisional office on the 26th March 1887.

38. *Constructing two outlets in 150th mile.*—Nineteen barrels of cement transferred to this work from another in October 1886 were shown in this work's ten-day report for 16th to 25th March 1887 as then received. The issuing work while showing the issue in its ten-day report of 1st to 10th October 1886 did not show the issue in its work abstract until February 1887.

39. *Constructing flood-gate, north bank of Elekeru river.*—Three hundred and sixty-four pounds of wrought iron, costing Rs. 79-10-0 were bought and issued to the contractor for this work in March 1887, but was not paid for until May 1887.

40. *Diverting canal where it crosses the Swarnamuki river.*—A voucher for Rs. 5 (watcher's pay for May 1887) could not be produced, it having been mislaid.

41. *General remarks.*—Measurement sheets are generally cancelled, but in pencil only.

42. No works other than major works are entered in the register of works. Code paragraph 1865 requires that all works, except those estimated to cost Rs. 200 and under, should be entered in the register of works.

43. The submission of ten-day reports immediately at the close of the ten days is imperative. Perhaps the most marked peculiarity of the prescribed accounts system is that it contemplates the accounting for works under sub-heads of estimates according to the charges incurred irrespective of payments. When work is done departmentally there is, as a rule, practically no difficulty in effecting the desired result, namely, to show liabilities incurred in advance of payments made for them, keeping a clear account of the difference between the liabilities and payments, which of course is the arrears due. It is with this view that the work abstract (Form No. 6) is used, its compilation, which in the case of a large work is often a big and troublesome job, would not be required, if the distinction between liabilities and payments was not intended. Such distinction is impossible unless liabilities are reported to the Executive Engineer in advance of payments, which they are not, unless the ten-day report is rendered to that officer in advance of nominal muster rolls and bills for materials. When payments are advised first, as is the case generally in this division, the labor of the work abstract is almost completely wasted, and no useful distinction between liabilities and payments is possible. The Executive Engineer considers Code paragraph 1367, which requires monthly report to the divisional office of measurements of works in progress, impracticable, as regards the bulk of the work in this division, which is earthwork, and which cannot be measured at any fixed interval of time, the time of measurement depending entirely upon the amount of work executed.

44. There is an item, Rs. 34-14-7, due since September 1886 to a contractor for improvements to canal, on which work there has been no outlay recorded since the above month. The above outstanding seems to have been overlooked, and will now be liquidated.

45. Also, since May 1886, two items, Rs. 142-5-4 and Rs. 115-9-9, are due to piece-workers. These men have not been heard of since the above date, though frequently solicited to take their money. Possibly it would be of no good to them where they are now. Anyhow the Superintending Engineer's sanction under Code paragraph 1828 should be obtained to close these accounts, debiting the works concerned and crediting deposits.

46. More care might have been taken about the contractors' ledger, which is evidently posted carelessly and far too late for any purpose. The ledger has not yet been posted for August, though the means of doing this have been in the accountant's hands for some days. There is obvious importance in having a contractor's account at all times correct and up to date, and so clearly worded that any contractor calling at the office can be expected to understand it and be satisfied with it, or in order that a court of law would be satisfied with it if the contractor were not.

47. The lateness of some of the sub-divisional vouchers, caused by the difficulty of getting at payees, suggests the question often raised before, but never settled—"On what date should a cheque drawn in the Executive Engineer's office be entered in the divisional cash book as paid away if it is sent to a Sub-divisional officer (under Code paragraph 1371) for delivery to a contractor who may or may not get the cheque in the course of a fortnight." Note No. 5 at the back of form No. M 3 (cash book) is at variance with the universal practice, which is to enter every cheque as paid away on the day it is drawn regardless of the date of delivery of the cheque.

48. There is no stock reserve in this division and there are no stock manufactures.

49. The accounts of tools and plant are in order.

50. There is nothing in the suspense account requiring notice.

51. The paid travelling allowance claims of lower subordinates, office and petty establishments, for March till July 1887 inclusive, were audited, and, subject to the following, were found correct.

52. Two annas billed for by Rungasawmy, acting lascar, for daily allowance on 6th and 9th June 1887, has not been paid, though the Executive Engineer passed the claim. The man's services have since been dispensed with, and he has not come for this payment.

53. The claims of lascars are sometimes in Telugu, and in such cases the equivalent in English might be given.

54. The journal of Sub-overseer B. Sarungapani Naidu for July 1887 was not available, it having been sent to the Superintending Engineer.

55. It is desirable that each man's claim should be on separate paper, and that where daily allowance is claimed, the hours of departure and arrival should be stated.

56. In the service book of messenger Ragoonath Sing there is a certificate of character written in pencil in January 1881 by the then Superintendent of Works. The following service books require to be re-attested.

57. Lascar R. Vencatasawmy, transferred from Nellore to this division in August 1887, whose book was last attested on 12th December 1881.

58. Clerk K. Ragaviah, whose book was last attested on 15th March 1881.

The service book of V. Lutchmana Charri, a clerk, was opened on 26th March 1881. The entries on the first page have not been verified by any officer. The clerk was formerly in Nellore and came to this office on the 15th August 1887.

59. The budget registers are in order.

60. A register of liabilities in form No. M 77 has been lately opened, which, unfortunately, the accountant does not quite understand the use of. Liabilities for land compensation, which are heavy in this division, have not been entered in the above register in advance of final adjustment. It was, however, pointed out by the Executive Engineer that, as it is not usual for the Civil department to pay for land in the same financial year as the requisition for it is made by this department, the record of the item then as a liability to be met by that year's grant would be nearly always useless, as it would most probably come against the grant of the following year, but such delay should be very rare.

61. The register of service labels is in order.

62. The register of buildings was checked as far as possible and found correct.

63. The Executive Engineer's personal acquaintance with all account matters is such that the office may be expected to steadily continue the improvement it has shown during the last few months as regards accounts. The accountant is sufficiently assisted.

(Signed) H. RAINIER,
Inspecting Officer.

Pulicat,
14th September 1887.

No. 732.

Forwarded to the Secretary to Government, Public Works Department, for information and orders of Government with the following summary and remarks by the Examiner:—

Item No.	Paragraph of Inspection Notes.	Irregularity noticed.	Code or other order bearing on the subject.	Examiner's remarks.
1	3	The Executive Engineer delegates powers to Sub-divisional officers to pay contractors within certain money limits.	Code paragraph 1371.	1. This is distinctly contrary to Code rules, but it may perhaps be passed over pending settlement of the general question as to payments.
2	7 & 23	Habitual failure to submit complete vouchers in support of sub-divisional cash accounts.	1737	2. I propose to deal separately with this question. The irregularity is very general.
3	10	Want of evidence of complete check of cash accounts by the divisional accountant.	374, 1834 and 1913.	3. Code paragraph 1913, which requires the accountant and the Executive Engineer to initial or sign each account document examined, might be modified so as to require in addition the date of signature or initials.
4	11	The certificate in the sub-divisional extract of having posted the cash abstract book, not entered and signed by the divisional accountant.	Form No. M 3., entry at the foot of cash book.	4. The above remark applies.
5	12	The cash book not completely posted into cash abstract book in spite of the divisional accountant's initials in cash book as having done so.	Do.	5. The accountant will be warned to be more careful.
6	17 & 18	The collections from 2 out of 3 wharfs cannot be checked in Executive Engineer's office.	261, note.	6. With reference to Code paragraph 261 note, the Superintending Engineer might be asked to inquire into the matter and suggest means of checking the collections.
7	19	The accountant himself does not audit the navigation receipts.	374, *et seq.*	7. The checking of the navigation receipts should, I think, be done under the accountant's supervision.
8	20 & 47	Date of payment of cheque in transit for delivery is entered in the cash book as paid on the date the cheque is drawn and not on the date it is delivered to payee.	Form No. M 3., note 5.	8. The procedure in such cases is one of the details which will probably be settled in connection with the general question of payments. In the meantime it seems better not to disturb the existing practice.
9	22	Destruction instead of simple defacement of petty contingent vouchers.	859	9. Such destruction is contrary to Code paragraph 859 and note, and should be discontinued. The Code might be made clearer as suggested in my remark on the inspection of the Cuddapah division.

Item No.	Paragraph of Inspection Notes.	Irregularity noticed.	Code or other order bearing on the subject.	Examiner's remarks.
10	21, 26, 28 to 35 & 39.	Want of prompt payment of liabilities.	Form No. M 4, note 4, Code paragraphs 297, 1818, 1824 & 1864.	10. Delays of a month or six weeks in payments of labor seems excessive.
11	25, 27 to 31 & 43	Failure to bring liability to account in the work abstract for the month in which the liability was incurred.	Code paragraph 1864.	11. Known liabilities should be promptly brought to account.
12	36 & 46	Delay in posting contractors' ledger.	Code paras. 1864, 1868 and 1367.	12. I have elsewhere referred to the absence of any suitable manual for the guidance of the accountants in the performance of duties. As regards the posting of credits to the contractor it is by no means clear at what point or stage the posting should be done. The accountant clearly cannot take upon himself to post the account until the certificate has been approved by the Executive Engineer, and when payments are made (as they should be) by the Executive Engineer, it is doubtful whether the certificate is dealt with by the Executive Engineer at all until the order to pay is given. I shall endeavor to take this matter up separately.
13	41	Cancelment of measurement sheets in pencil and not in ink.	1786, Form No. M 19.	13. According to Code rule this should be seen to by the Superintending Engineer.
14	42	Omission of minor works above Rs. 200 from the register of works.	Code para. 1865.	14. The Executive Engineer should have the omission supplied, and report that he has done so.
15	43	The alleged impracticability of submitting monthly report of measurements of earthwork in progress.	Code para. 1367.	15. This matter will be taken up separately (*vide* para. 8 of my office note No. 607, dated 4th October 1887).
16	44	An item of balance due to a contractor outstanding from September 1886.	Code para. 1824.	16. Apparently an oversight which is now being remedied.
17	45	Two items of balances due to piece-workers outstanding since May 1887.	Form No. M 14 (*a*), note 1.	17. Should be transferred to deposits (see Code para. 1828) with the sanction of the Superintending Engineer so as to close the account.
18	52	Travelling allowance due for June 1887 to a dismissed lascar not yet disbursed.	.....	18. Apparently unavoidable.
19	53 & 55	System of recording and dealing with claims to travelling allowance defective.	.....	19. Please see suggestions made in previous reports.

Item No.	Paragraph of Inspection Notes.	Irregularity noticed.	Code or other order bearing on the subject.	Examiner's remarks.
20	57 & 58	Two service books requiring re-attestation and one incomplete.	Code para. 864, note 1.	20. The Executive Engineer should report the completion of these service books.
21	56	Entry of certificate of character in pencil in a service book.	Printed instructions in the service book.	21. Should be expunged.
22	60	The omission of liabilities for land compensation from the register of liabilities.	Code para. 1595 and Form No. M 77, note 3.	22. The liability should be registered as soon as the award is known to have been made, but not sooner.

MADRAS,
4th November 1887.

(Signed) C. H. P. CHRISTIE, Major, R.E.,
Examiner, Public Works Accounts.

ORDER—dated 12th November 1887, No. 3059 W., Public Works.

Communicated to the Superintending Engineer, II Circle, who will direct the attention of the Executive Engineer to the remarks and suggestions of the Examiner, Public Works Accounts.

2. The improvement in the state of the office since the date of the last inspection is creditable to the present Executive Engineer.

(True Extract.)

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

To the Superintending Engineer, II Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.

Exd. J. Moses.
Spare Copies

GENERAL.
ACCOUNT.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated November, 12th.

Read. *Encl.*

G.O., 12th Nov. 1887, No. 3059 W.

NOVEMBER.

Inspection

Orders on the notes of — of the Buckingham canal division office, submitted by the Examiner, Public Works Accounts.

Estimate form—Abstract—Classified.

Sub-heads.	Names of works.	Amounts of estimates for individual works.	Totals of sub-heads.	Total for each canal or distributary.	Total of each main head.	Remarks.
1	2	3	4	5	6	7
	NORTHERN CANAL.					
	Section I.—From St. Mary's Bridge at Madras to Pulicat.					
		Rs.	Rs.	Rs.	Rs.	
B. Land ...	Improvements to the basin at Madras	8,350				
Do. ...	Diversion to canal from Shadayancoopam lock to Ennore.	3,442				G.O., No. 249 I., of 4th March 1884.
Do. ...	Second-class rest-house at Ennore	40				
Do. ...	Diversion and improvements to canal from Ennore to Pulicat.	10,000	21,832			
G. Bridges ...	Improvements and alterations to Salt Kotar bridge ...	13,000				
Do. ...	Do. do. to Washermanpet bridge.	7,090				G.O., No. 37 I., of 10th January 1885.
Do. ...	Do. do. to Trivettore bridge ...	7,090	27,180			
I. Navigation works.	Elephant gate wharf	3,149				
Do. ...	Improvements to the basin at Madras	87,335				
Do. ...	Flood gate south bank of Ennore backwater ...	22,380				} G.O., No. 515 I., of 3rd July 1883.
Do. ...	Do. north do. do.	22,380				
Do. ...	Do. south bank of Arni river	16,650				
Do. ...	Do. north do. do.	16,650				
Do. ...	Do. at the Pulicat lake end	16,650	1,85,194			
K. Buildings ...	Toll office and establishment sheds at Shadayancoopam lock.	759				
Do. ...	Second-class rest-house at Ennore	5,675	6,434			
L. Earthwork ...	Improvements to canal from basin to Shadayancoopam lock.	19,775				
Do. ...	Diversion to canal from Shadayancoopam lock to Ennore.	28,498				G.O., No. 249 I., of 4th March 1884.

399

Sub-heads.	Names of works.	Amounts of estimates for individual works.	Totals of sub-heads.	Total for each canal or distri-butary.	Total of each main head.	Remarks.
1	2	3	4	5	6	7
	NORTHERN CANAL—*cont.*	RS.	RS.	RS.	RS.	
	Section I.—From St. Mary's Bridge at Madras to Pulicat—cont.					
L. Earthwork ...	Diversion and improvements to canal from Ennore to Pulicat.	1,33,360				
Do. ...	Siding basins at Pulidivakkam, Kattupully, Kalanjee and Karangalee.	4,640				
Do. ...	Two siding basins at Pulicat	2,685				
			1,88,958			
O. Miscellaneous.	Removing and resetting mile and furlong stones ...	940				
Do. ...	Gauge establishment	1,261				
			2,201			
	Past outlay to close of famine, &c.	...	1,452			
				4,33,251		
	Section II.—From Pulicat to Dugarázpatnam.					
B. Land ...	Diversion to canal from Coromandel to Tettupet ...	6,280				
Do. ..	Do. to canal from Tettupet to Jonagapolliem, 38 miles to 43 miles 5 furlongs.	3,334				G.O., No. 369 I., of 16th April 1885.
Do. ...	Second-class rest-house at Jonagapolliem	40				G.O., No. 399 I., of 28th April 1885.
Do. ...	Do. do. at Rayadoruvu ...	40				
Do. ...	Diversion to canal, 65 miles 5 furlongs to 67 miles 2 furlongs.	720				
			10,414			
F (1). Other cross drainage works.	Outlet at Coromandel	3,950				
Do. ...	Do at 67 miles 2 furlongs	3,660				
			7,610			
I. Navigation works.	Flood gate at Coromandel end	16,650				
Do ...	Do. south bank of Dugarázpatnam river ...	19,030				
			35,680			
K. Buildings ...	First-class rest-house at Coromandel	3,160				
Do. ...	Second-class rest-house at Jonagapolliem	5,675				
Do. ...	Toll office and establishment sheds at Rayadoruvu ...	868				
Do. ...	Second-class rest-house at Rayadoruvu	5,675				
			15,378			
L. Earthwork ...	Diversion to canal from Coromandel to Tettupet ...	84,720				
Do. ...	Siding basin at Coromandel	510				G.O., No. 369 I., of 16th April 1885.
Do. ...	Improvements to canal, 36 miles 2 furlongs to 38 miles.	7,350				
Do. ...	Siding basin at Tettupet	635				
Do. ...	Diversion to canal from Tettupet to Jonagapolliem, 38 miles to 43 miles 5 furlongs.	58,896				G.O., No. 399 I., of 28th April 1885.
Do. ...	Two siding basins at Chinnigaripolliem and Jonagapolliem.	1,055				
Do. ...	Improvements to canal, 44 miles to 65 miles 5 furlongs.	1,35,765				
Do. ...	One siding basin at cusbah	395				
Do. ...	Two siding basins at Rayadoruvu and Pambali ...	1,320				
Do. ...	Diversion to canal, 65 miles 5 furlongs to 67 miles 2 furlongs.	19,710				
Do. ...	Reclamation of embankment, Pulicat to Dugarázpatnam.	10,000				
			3,20,356			
O. Miscellaneous .	Removing and resetting mile and furlong stones ...	1,520				
Do. ...	Gauge establishment	1,097				
			2,617			
	Past outlay to close of famine, &c.	...	2,50,973			
				6,43,028		
	Section III.—From Dugarázpatnam to Kistnapatam.					
B. Land ..	Diversion to canal, 67 miles 2 furlongs to 72 miles 2 furlongs.	2,200				
Do. ...	Second-class rest-house at Dugarázpatnam	40				
Do. ...	Swarnamukhi diversion and flood banks	3,000				
Do. ...	Second-class rest-house at Siddavaram	40				
			5,280			
F (1). Other cross drainage works.	Outlet at 67 miles 3 furlongs	3,660				
Do. ...	Do. at 71 miles 6 furlongs	3,660				
Do. ...	Do. at 76 miles 5 furlongs	3,450				
Do. ...	Do. at 89 miles 6 furlongs	3,450				
			14,220			
I. Navigation works.	Flood gate north bank of Dugarázpatnam	19,030				

Sub-heads.	Names of works.	Amounts of estimates for individual works.	Totals of sub-heads.	Total for each canal or distributary.	Total of each main head.	Remarks.
1	2	3	4	5	6	7
	NORTHERN CANAL.—*cont.*	RS.	RS.	RS.	RS.	
	Section III.—From Dugarázpatnam to Kistnapatam —cont.					
I. Navigation works.	Flood gate south bank of Swarnamukhi river ...	20,880				
Do. ...	Do. north bank of do.	20,880				
Do. ...	Do. south bank of Kandaleru river	18,040				
			78,830			
K. Buildings ...	Second-class rest-house at Dugarázpatnam	5,675				
Do. ...	Store and office at do.	2,340				
Do. ...	Second-class rest-house at Siddavaram	5,675				
			13,690			
L. Earthwork ...	Diversion to canal, 67 miles 2 furlongs to 72 miles 2 furlongs.	53,370				
Do. ...	Siding basin at Dugarázpatnam	1,090				
Do. ...	Do. at Tupili	590				
Do. ...	Improvements to canal, 72 miles 2 furlongs to 75 miles 3 furlongs.	17,200				
Do. ...	Swarnamukhi diversion and flood banks	33,700				
Do. ...	Improvements to canal, 77 miles 1 furlong to 89 miles ½ furlong.	24,200				
Do. ...	Two siding basins at Siddavaram and Kanoopur. ...	1,270				
Do. ...	Diversion to canal 89 miles ½ furlong to 89 miles 7 furlongs.	8,400				
			1,39,820			
O. Miscellaneous...	Removing and resetting mile and furlong stones ...	760				
Do. ...	Gauge establishment	1,867				
			2,627			
	Past outlay to close of famine, &c.	...	2,85,782			
				5,40,249		
	Section IV.—From Kistnapatam to Pennér River.					
B. Land ...	First-class rest-house at Kistnapatam	40				
Do. ...	Diversion to canal, 97 miles 2 furlongs to 97 miles 7 furlongs and new cut to drainage channel.	40				
Do. ...	Diversion to canal, 101 miles 1 furlong to 101 miles 6 furlongs and cutting drainage channel.	620				
			700			
F (1). Other cross drainage works.	Outlet at 90 miles 6 furlongs	3,450				
Do. ...	Do. 95 do. 4 do.	3,485				
Do. ...	Do. 95 do. 6 do.	3,485				
Do. ...	Do. 101 do. 3 do.	3,590				
Do. ...	Do. 101 do. 4 do.	3,590				
Do. ...	Do. 107 do. 3 do.	3,590				
Do. ...	Do. 108 do. 5 do.	3,510				
Do. ...	Do. 111 do. 3 do.	3,510				
Do. ...	Do. 113 do. 2 do.	3,510				
			31,720			
G. Bridges ...	Bridge at Kistnapatam road crossing	10,250				
			10,250			
I. Navigation works.	Flood gate north bank of Kandaleru river	18,380				
Do. ...	Do. south bank of Nalatur river	18,550				
Do. ...	Do. north bank of do.	18,550				
Do. ...	Do. south bank of Kodur river	15,540				
Do. ...	Do. north bank of do.	15,540				
Do. ...	Do. south bank of Gungapatam river	20,500				
Do. ...	Do. north bank of do.	20,500				
Do. ...	Do. south bank of Pennér river	20,500				
			1,48,060			
K. Buildings ...	First-class rest-house at Kistnapatam	6,590				
Do. ...	Toll office and establishment sheds at Kodur ...	1,400				
Do. ...	Store and office at Mypaud	2,340				
			10,330			
L. Earthwork ...	Improvements to canal, 90 miles 6 furlongs to 92 miles.	6,100				
Do. ...	Siding basin at 91 miles	1,480				
Do. ...	Diversion to canal, 92 miles to 93 miles 4 furlongs...	13,680				
Do. ...	Siding basin at Kistnapatam	655				
Do. ...	Improvements to canal, 93 miles 4 furlongs to 95 miles 6 furlongs.	7,030				
Do. ...	Improvements to canal, 95 miles 6 furlongs to 97 miles 2 furlongs.	11,930				

Sub-heads.	Names of works.	Amounts of estimates for individual works.	Totals of sub-heads.	Total for each canal or distributary.	Total of each main head.	Remarks.
1	2	3	4	5	6	7
	NORTHERN CANAL—*cont.*	RS.	RS.	RS.	RS.	
	Section IV.—From Kistnapatam to Pennér River—cont.					
L. Earthwork ...	Diversion to canal, 97 miles 2 furlongs to 97 miles 7 furlongs and new cut to drainage channel.	6,300				
Do. ...	Improvements to canal, 97 miles 7 furlongs to 101 miles 1 furlong.	4,350				
Do. ...	Diversion to canal, 101 miles 1 furlong to 101 miles 6 furlongs and cutting drainage channel.	6,680				
Do. ...	Improvements to canal, 101 miles 6 furlongs to 111 miles 3 furlongs and 5 furlongs.	29,950				
Do. ...	Siding basin at Mypaud	1,075				
Do. ...	Improvements to canal, 111 miles 5 furlongs to 114 miles 2 furlongs.	12,980				
			1,02,210			
O. Miscellaneous.	Removing and resetting mile and furlong stones ...	920				
Do. ...	Gauge establishment	588				
			1,508			
	Past outlay to close of famine, &c.	...	3,07,990			
				6,12,768		
	Section V.—From Pennér River to tail of Commamur Canal in Kistna District.					
B. Land ...	Pennér diversion	1,400				
Do. ...	Training and cross bank of Pennér river	2,060				
Do. ...	Second-class rest-house at Pennér island	40				G.O., No. 121 I., of 7th Feb. 1885.
Do. ...	Diversion to canal, 122 miles 6½ furlongs to 123 miles 5 furlongs.	2,000				
Do. ...	Diversion to canal, 123 miles 6 furlongs to 126 miles 7 furlongs.	1,820				
Do. ...	Diversion to canal, 131 miles 7 furlongs to 132 miles 5 furlongs.	40				
Do. ...	Diversion to canal, 132 miles 5 furlongs to 134 miles 3 furlongs.	75				
Do. ...	Second-class rest-house at Tumalapenta	40				
Do. ...	Restoring and extending Manneru left flood bank ...	500				G.O., No. 774 I., of 27th August 1884.
Do. ...	Manneru north diversion	380				
Do. ...	Second-class rest-house at Pakala	40				Superintending Engineer, V Circle, No. 3434, of 22nd Dec. 1883.
Do. ...	Paleru right flood bank	506				G.O., No. 588 I., of 25th July 1883, and G.O., No. 490 I., of 30th May 1885.
Do. ...	Moosee left flood bank and Enagalur diversion to Moosee.	80				G.O., No. 112 I., of 2nd Feb. 1884, and G.O., No. 490 I., of 30th May 1885.
Do. ...	Thonderu diversion, 177 miles to 177 miles 7 furlongs.	380				
Do. ...	First-class inspection bungalow at Kottapatam ...	40				
Do. ...	Gundlakamma right flood bank	265				
Do. ...	Do. left do.	1,500				
Do. ...	Second-class rest-house at Kanuparti	40				
Do. ...	Flood bank at Kanuparti	405				
				11,611		
E. Falls and weirs.	Road dam at Kothapatam	3,600				
				3,600		
F (1). Other cross drainage works.	Outlet at 116 miles 7 furlongs	3,510				
Do. ...	Do. at 120 miles	3,250				
Do. ...	Two outlets at 123 miles 5 furlongs to 123 miles 6 furlongs.	6,500				
Do. ...	Outlet at 132 miles 5 furlongs	3,045				
Do. ...	Two outlets at 132 miles 6 furlongs	6,090				
Do. ...	Do. at 150 miles 5 furlongs	5,640				
Do. ...	Outlet at 151 miles	2,820				
Do. ...	Do. at 159 miles 7 furlongs	2,990				
Do. ...	Do. at 160 miles	2,990				
Do. ...	Do. at 164 miles 5 furlongs	3,055				
Do. ...	Do. at 168 miles	3,055				
Do. ...	Do. at 169 miles 3 furlongs	3,055				
Do. ...	Do. at 183 miles 2 furlongs	3,170				
Do. ...	Two outlets at 191 miles	6,780				
				55,950		
G. Bridges ...	Bridge at Ethamukkala	10,250				
Do. ...	Bridge at Kothapetam	10,250				
				20,500		

Sub-heads.	Names of works.	Amounts of estimates for individual works.	Totals of sub-heads.	Total for each canal or distributary.	Total of each main head.	Remarks.
1	2	3	4	5	6	7
	NORTHERN CANAL—*cont.*	RS.	RS.	RS.	RS.	
	Section V.—From Pennér River to tail of Commamur Canal in Kistna District—cont.					
I. Navigation works.	Flood gate north bank of Pennér river	20,500				
Do. ...	Do. south bank of Pyderu river	19,060				
Do. ...	Do. north bank of do.	19,060				
Do. ...	Do. south bank of Iskápalle river	19,080				
Do. ...	Do. north bank of do.	19,080				
Do. ...	Do. south bank of Chippaleru river	18,100				
Do. ...	Do. north bank of do.	18,100				
Do. ...	Do. south bank of Elekeru river	13,720				
Do. ...	Do. north bank of do.	13,720				
Do. ...	Do. south bank of Manneru river	20,240				
Do. ...	Do. north bank of do.	20,240				
Do. ...	Do. south bank of Paleru river	18,440				
Do. ...	Do. north bank of do.	18,440				
Do. ...	Do. south bank of Moosee river	18,440				
Do. ...	Do. north bank of do.	18,440				
Do. ...	Do. south bank of Mudigondi river	21,460				
Do. ...	Do. north bank of do.	21,460				
Do. ...	Do. south bank of Gundlakamma river ...	21,720				
Do. ...	Do. north bank of do.	21,720				
Do. ...	Do. at Pedda Ganjam	18,300				
			3,79,320			
K. Buildings ...	Second-class rest-house at Pennér island	5,675				
Do. ...	Do. do. at Tumalapenta	5,675				
Do. ...	First-class inspection bungalow at Ramapatam ...	8,004				
Do. ...	Office and store at Ramapatam	2,340				
Do. ...	Toll office, &c., at do.	1,300				
Do. ...	Second-class rest-house at Pakala	5,675				Superintending Engineer, V Circle, No. 3434, of 22nd Dec. 1883.
Do. ...	First-class inspection bungalow at Kothapatam ..	6,590				
Do. ...	Stores and office at Kothapatam	2,340				
Do. ...	Second-class rest-house at Kanuparti ...	5,675				
Do. ...	Toll office and establishment sheds at Pedda Ganjam.	2,004				
			45,278			
L. Earthwork ...	Pennér diversion	67,900				
Do. ...	Training and cross bank of Pennér river	66,630				
Do. ...	Improvements to canal, 116 miles 7 furlongs to 119 miles 3 furlongs.	11,145				
Do. ...	Ramatheertham diversion, 119 miles 3 furlongs to 120 miles 1 furlong.	8,230				G.O., No. 121 I., of 7th Feb. 1885.
Do. ...	Siding basin at Ramatheertham	1,310				
Do. ...	Improvements to canal, 120 miles 1 furlong to 122 miles, 6½ furlongs.	5,580				G.O., No. 121 I., of 7th Feb. 1885.
Do. ...	Diversion to canal, 122 miles 6½ furlongs to 123 miles 5 furlongs.	30,340				Do. do.
Do. ...	Diversion to canal, 123 miles 6 furlongs to 126 miles 7 furlongs.	44,080				
Do. ...	Improvements to canal, 126 miles 7 furlongs to 131 miles, 7 furlongs.	25,900				
Do. ...	Siding basin at Iskápalle	1,160				
Do. ...	Diversion to canal, 131 miles 7 furlongs to 132 miles 5 furlongs.	9,324				
Do. ...	Diversion to canal, 132 miles 5 furlongs to 134 miles 3 furlongs.	18,615				
Do. ...	Improvements to canal, 134 miles 3 furlongs to 150 miles 5 furlongs.	33,100				
Do. ...	Siding basin at Tumalapenta	900				
Do. ...	Do. at Chenugaripolliem	3,180				
Do. ...	Do. at Ramapatam	2,590				
Do. ...	Improvements to canal, 151 miles to 159 miles 7 furlongs.	21,530				
Do. ...	Two siding basins at Chackicherla and Karedu ...	1,310				
Do. ...	Manneru southern diversion					
Do. ...	Do. right flood bank	9,350				
Do. ...	Do. left do.					G.O., No. 490 I., of 30th May 1885.
Do. ...	Restoring and extending Manneru left flood bank ...	17,640				
Do. ...	Do. north diversion	5,870				G.O., No. 774 I., of 27th Aug. 1884.
Do. ...	Improvements to canal, 160 miles 6 furlongs to 168 miles 2 furlongs.	31,660				

Sub-heads.	Names of works.	Amounts of estimates for individual works.	Totals of sub-heads.	Total for each canal or distributary.	Total of each main head.	Remarks.
1	2	3	4	5	6	7
	NORTHERN CANAL—*cont.*	RS.	RS.	RS.	RS.	
	Section V.—From Pennér River to tail of Commamur Canal in Kistna District—cont.					
L. Earthwork ...	Siding basin at Oollapolliem	1,115				
Do. ...	Do. at Pakala	615				
Do. ...	Paleru right flood bank	8,468				G.O., No. 588 I., of 25th July 1883, and G.O., No. 490 I., of 30th May 1885.
Do. ...	Duplicate cut and improvements to canal, 168 miles 2 furlongs to 169 miles 3 furlongs.	14,100				
Do. ...	Moosee left flood bank and Enagalur diversion to Moosee.	15,617				G.O., No. 490 I., of 30th May 1885.
Do. ...	Improvements to canal, 169 miles 3 furlongs to 177 miles.	15,800				
Do. ...	Siding basin at Manneru	2,135				
Do. ...	Do. at Ethamukkala	2,410				
Do. ...	Thonderu diversion, 177 miles to 177 miles 7 furlongs.	10,770				
Do. ...	Improvements to canal, 177 miles 7 furlongs to 183 miles 1 furlong.	23,900				
Do. ...	Basin at Kothapatam, both sides	8,180				
Do. ...	Siding at Mottumala	505				
Do. ...	Improvements to canal, 183 miles 3 furlongs to 186 miles 6 furlongs.	41,220				
Do. ...	Siding basin at Patapadu	515				
Do. ...	Gundlakamma right flood bank	3,135				
Do. ...	Improvements to canal, 187 miles to 190 miles 3 furlongs.	13,380				
Do. ...	Gundlakamma left flood bank	10,350				
Do. ...	Siding basin at Devarampadu	590				
Do. ...	Diversion at Kanuparti, 190 miles 3½ furlongs to 191 miles 4 furlongs.	11,630				
Do. ...	Siding basin at Kanuparti	1,115				
Do. ...	Flood bank at do.	1,565				
Do. ...	Improvements to canal, 191 miles 4 furlongs to 194 miles 7¾ furlongs.	24,800				
Do. ...	Siding basin at Pedda Ganjam	430				
Do. ...	Improvements to canal, 191 miles 4 furlongs to 194 miles 7¾ furlongs.	3,100				
Do. ...	Reclamation embankment	1,500				
			6,34,289			
O. Miscellaneous.	Removing and resetting mile and furlong stones ...	2,900				
Do. ...	Gauge establishment	4,407				
			7,307			
	Past outlay to close of famine, &c.	...	13,16,422			
				24,74,277		
	Section VI.—Junction Canal from Buckingham Canal to Commamur Canal, Kistna District.					
F (1). Other cross drainage works.	Under-tunnel	14,000				
Do. ...	Inlet and outlet at the crossing of the Pedda Ganjam creek.	2,770				
			16,770			
L. Earthwork ...	Drainage cut	3,830				
			3,830			
	Past outlay to close of famine, &c.	...	20,674			
				41,274		
O. Miscellaneous.	Fixing permanent boundary stones in concrete for defining the limits of existing canal.	2,754	2,754	2,754		G.O., No. 490 I., of 30th May 1885.
	Tools and plant and machinery	...	...	56,103		
					48,03,704	
	SOUTHERN CANAL.					
	Section I.—From St. Mary's Bridge at Madras to Sadras Canal Lock.					
G. Bridges ...	Towpaths 15 to bridges across junction canal ...	3,000				
			3,000			
I. Navigation works.	Lock at Adyar river left bank	42,482				G.O., No. 399 I., of 28th April 1885.
			42,482			
L. Earthwork ...	Training banks to Adyar river left bank	1,500				
			1,500			
O. Miscellaneous.	Removing and resetting mile and furlong stones ...	300				
			300			

Sub-heads.	Names of works.	Amounts of estimates for individual works.	Totals of sub-heads.	Total for each canal or distributary.	Total of each main head.	Remarks.
1	2	3	4	5	6	7
	SOUTHERN CANAL—*cont.*	RS.	RS.	RS.	RS.	
	Section I.—From St. Mary's Bridge at Madras to Sadras Canal Lock—cont.					
	Past outlay to close of famine, &c.	...	6,47,157			
				6,94,439		
	Section II.—From Sadras Canal Lock to Pálár River.					
B. Land ...	Diversion to canal, 8 miles 4 furlongs to 15 miles 1 furlong.	5,220				
Do. ...	Diversion to canal, 15 miles 2 furlongs to 31 miles 2 furlongs.	8,906				G.O., No. 430 I., of 6th May 1885.
Do. ...	Second-class rest-house at Covelong	40				
Do. ...	Diversion to canal, 31 miles 4 furlongs to 32 miles 3 furlongs.	520				
Do. ...	Improvements to canal diversion and flood bank to Pálár river.	2,440				G.O., No. 399 I., of 28th April 1885.
			17,126			
F (1). Other cross drainage works.	Five outlet sluices	14,700				
			14,700			
I. Navigation works.	Lock at Adyar river right bank	42,750				
Do. ...	Flood gate north bank of Covelong backwater ...	14,800				
Do. ...	Do. south bank of do. ...	14,800				
Do. ...	Do. north bank of Edayur backwater ...	14,800				
Do. ...	Do. south bank of do.	14,800				
Do. ...	Do. north of Pudupatnam drain near Sadras.	15,130				
Do. ...	Do. south bank of do. do.	15,130				
Do. ...	Do. left bank of Pálár river	18,950				
			1,51,160			
K. Buildings ...	Toll office and establishment sheds at Palavakkam ...	925				
Do. ...	Second-class rest-house at Covelong	5,675				
			6,600			
L. Earthwork ...	Training banks to Adyar river right bank	2,500				
Do. ...	Improvements to canal from Adyar river to 8 miles 4 furlongs.	50,700				
Do. ...	Two siding basins at Guindy bridge and at lattice girder bridge, &c.	4,045				
Do. ...	Siding basin at Neelankarai	1,250				
Do. ...	Diversion to canal, 8 miles 4 furlongs to 15 miles 1 furlong.	49,980				
Do. ...	Two siding basins at Vanienchavady, 12 miles and 13 miles.	1,800				
Do. ...	Diversion to canal, 15 miles 2 furlongs to 31 miles 2 furlongs.	1,44,644				G.O., No. 430 I., of 6th May 1885.
Do. ...	Six siding basins at 16 miles 3 furlongs, 18 miles, 20 miles 4 furlongs, 23 miles 4 furlongs, 28 miles 4 furlongs, and 30 miles 1 furlong.	9,625				
Do. ...	Diversion to canal, 31 miles 4 furlongs to 32 miles 3 furlongs.	6,910				
Do. ...	Siding basin at Konatur, 32 miles 2 furlongs ...	1,695				
Do. ...	Improvements to canal, 32 miles 3 furlongs	14,875				
Do. ...	Siding basin at Sadras	2,670				
Do. ...	Improvements to canal diversion and flood bank to Pálár river.	79,840				G.O., No. 399 I., of 28th April 1885.
Do. ...	Siding basin at Pudupatnam	3,375				
			3,73,909			
O. Miscellaneous.	Removing and resetting mile and furlong stones ...	1,280				
Do. ..	Gauge establishment	1,503				
			2,783			
	Past outlay to close of famine, &c.	...	73,325			
				6,39,603		
	Section III.—From Pálár River to Merkanam.					
B. Land ...	Second-class rest-house at Panayur	40				
			40			
F (1). Other cross drainage works.	Masonry inlets	15,750				
			15,750			G.O., No. 430 I., of 6th May 1885.
G. Bridges ...	Bridge in the 55th mile	4,460				
			4,460			
I. Navigation works.	Flood gate Pálár river right bank	18,620				G.O., No. 317, of 26th March 1885.
			18,620			

Estimate form—Abstract—Classified—*cont.*

Sub-heads.	Names of works.	Amount of estimates for individual works.	Totals of sub-heads.	Total for each canal or distributary.	Total of each main head.	Remarks.
1	2	3	4	5	6	7
	SOUTHERN CANAL—*cont.*	Rs.	Rs.	Rs.	Rs.	
	Section III.—From Pálár River to Merkanam—cont.					
K. Buildings ...	Second-class rest-house at Panayur	5,675				
Do. ...	Toll office and establishment sheds at Alambarai ...	640				
Do. ...	Store and office at Alambarai	2,340				
			8,655			
O. Miscellaneous.	Removing and resetting mile and furlong stones ...	2,400				
Do. ...	Gauge establishment	640				
			3,040			
	Past outlay to close of famine, &c.		1,83,410			
				2,33,975		
Do. ...	Fixing permanent boundary stones in concrete for defining the limits of existing canal.	291	291	291		G.O., No. 490 I., of 30th May 1885.
	Tools and plant and machinery	...	...	10,245		
					15,78,553	
	Amount in reserve on the 30th June 1885 as per statement herewith.	...	...	...	4,843	
	Grand Total, Northern and Southern Canals ...	...	...	...	63,87,100	

PULICAT,
6th July 1885.

(Signed) J. L. L. MORANT, Lieut.-Col., R.E.,
Executive Engineer, Buckingham Canal Division.

BUCKINGHAM CANAL DIVISION.

General classified abstract estimate as modified up to 30th June 1885.

Canal.	Section.	B. Land.	E. Falls and weirs.	F (1). Other cross drainage works.	G. Bridges.	I. Navigation.	K. Buildings.	L. Earthwork.	O. Miscellaneous.	Total of sub-heads.	Past outlay to close of famine, &c.	Total.	Tools and plant and machinery.	Total.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Northern.	I ...	21,832	...	...	27,180	1,85,194	6,434	1,88,958	2,201	4,31,799	1,452	4,33,251	...	...
	II ...	10,414	...	7,610	...	35,680	15,378	3,20,356	2,617	3,92,055	2,50,973	6,43,028	...	...
	III ...	5,280	...	14,220	...	78,830	13,690	1,39,820	2,627	2,54,467	2,85,782	5,40,249	...	...
	IV ...	700	...	31,720	10,250	1,48,060	10,330	1,02,210	1,508	3,04,778	3,07,990	6,12,768	...	...
	V ...	11,611	3,600	55,950	20,500	3,79,320	45,278	6,34,289	7,307	11,57,855	13,16,422	24,74,277	...	...
	VI ...	...	...	16,770	...	...	...	3,830	2,754	23,354	20,674	44,028	...	...
Total ...	...	49,837	3,600	1,26,270	57,930	8,27,084	91,110	13,89,463	19,014	25,64,308	21,83,293	47,47,601	56,103	48,03,704
Southern ...	I ...	...	...	...	3,000	42,482	...	1,500	300	47,282	6,47,157	6,94,439	...	...
	II ...	17,126	...	14,700	...	1,51,160	6,600	3,73,909	2,783	5,66,278	73,325	6,39,603	...	...
	III ...	40	...	15,750	4,460	18,620	8,655	...	3,331	50,856	1,83,410	2,34,266	...	...
Total ...	...	17,166	...	30,450	7,460	2,12,262	15,255	3,75,409	6,414	6,64,416	9,03,892	15,68,308	10,245	15,78,553
Unforeseen works.	...	...	...	...	...	...	...	...	...	4,843	...	4,843	...	4,843
Grand Total.	...	...	...	...	...	...	...	...	...	32,33,567	30,87,185	63,20,752	66,348	63,87,100

BUCKINGHAM CANAL DIVISION,
6th July 1885.

(Signed) J. L. L. MORANT, Lieut.-Col., R.E.,
Executive Engineer, Buckingham Canal Division.

BUCKINGHAM CANAL DIVISION.

STATEMENT showing the balance of the amount reserved for unforeseen works available on the 30th June 1885.

Authority.	Excess.	Saving.
	Rs.	Rs.
Provision in the completion estimates sanctioned in G.O., No. 841 W., of 14th March 1883	...	...
Provision in the completion estimates sanctioned in G.O., No. 249 I., of 4th March 1884	...	10,310
Provision in the completion estimates sanctioned in G.O., No. 774 I., of 27th August 1884	2,140	...
Provision in the completion estimates sanctioned in G.O., No. 37 I., of 10th January 1885	3,149	...
Provision in the completion estimates sanctioned in G.O., No. 317 I., of 26th March 1885	4,460	...
Provision in the completion estimates sanctioned in G.O., No. 399 I., of 28th April 1885	...	908
Provision in the completion estimates sanctioned in G.O., No. 409 I., of 30th May 1885	3,045	6,419
Total ...	12,794	17,637
Deduct excess ...	...	12,794
Net saving ...	...	4,843

BUCKINGHAM CANAL DIVISION.

STATEMENT showing the balance of the lump sum provision for III. Tools and Plant available on the 30th June 1885.

		Rs.	Rs.
G.O., No. 727 I. 12th August 1884 ..	Amount of lump sum provision		1,57,762
	Actual charges to end of 1883-84		1,04,350
			53,412
	Balance of the estimate for a first-class boat sanctioned in G.O., No. 875 I., of 6th November 1883..	920	
,, ,, 727 I. 12th August 1884 ..	Two hand dredgers	1,660	
,, ,, 805 I. 4th September 1884 ..	Leather belting and hammers	853	
,, ,, 854 I. 20th ,, ,, ..	Ten-ton wharf crane	800	
,, ,, 856 I. 20th ,, ,, ..	Punt with wooden ribs and wooden shell	1,870	
,, ,, 1002 I. 8th November ,, ..	Traversing and Haley's jacks	220	
,, ,, 1145 I. 19th December ,, ..	Two second-class staff boats	2,020	
,, ,, 532 I. 19th June 1885 ..	Two Weston's differential pulley blocks	102	
,, ,, 550 I. 22nd ,, ,, ..	Expenditure incurred in 1884-85 in providing tools and plant and machinery required for the northern section	9,478	..
			17,923
	Balance still available		35,489

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following papers :—

Letter from the Superintending Engineer, II Circle, dated 13th May 1885, No. 107 B.C.
Memo. to the Superintending Engineer, II Circle, dated 3rd June 1885, No. II-35 B.C.
Letter from the Superintending Engineer, II Circle, dated 21st July 1885, No. 200 B.C.

No. 147 I.

Note by the Chief Engineer for Irrigation.

With letter No. 200 B.C., dated 21st July 1885, the Superintending Engineer, II Circle, has submitted for verification in this office four statements showing the estimates for works and tools and plant of the Buckingham canal as modified up to end of June last.

2. The statements have been checked in this office and some slight alterations have been made in them. The items included in the summary of estimates printed in G.O., No. 841 W., dated 14th March 1883, were not classified by sub-heads, nor were the amounts included for land compensation in some of the items separately shown. This has now been done in the classified abstract estimate forwarded by the Superintending Engineer. Statement No. 2 is a general classified abstract showing the total under each sub-head for each section of the canal. Statement No. 3 exhibits the balance of the amount available for unforeseen works. The savings amounted to Rs. 17,637 and the excesses to Rs. 12,794, leaving Rs. 4,843 available to meet future demands. Statement No. 4 indicates that of a balance of Rs. 53,412 at the end of 1883-84; Rs. 17,923 have already been appropriated, leaving Rs. 35,489 still available for tools and plant.

3. It is recommended that these statements may be printed and communicated to the officers concerned for information.

BELLARY, 15th August 1885.

(Signed) J. O. HASTED, Colonel, R.E.,
Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

ORDER—dated 18th August 1885, No. 709 I., Public Works.

Communicated to the officers concerned for information.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, II Circle, with enclosures.
,, Chief Engineer for Irrigation.
,, Examiner, Public Works Accounts.
,, Revenue Department.

Exd. J. Henricus.
Spare Copies

IRRIGATION.
ACCOUNT.

Govt. of {1885} Madras.

PUBLIC WORKS.

Dated August, 18*th*.

Read. *Encl.*

G.O., 18th Aug. 1885, No. 709 I.

AUGUST.

Buckingham Canal

Note by the Chief Engineer for Irrigation submitting statements showing the estimates for works and tools and plant for the —, communicated to the officers concerned.

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

397

READ the following

From the Examiner P. W. Accounts A. C. No. 142 Dated 1st Feby. 1889

Communicated to the Superintending Engineer II Circle for the information and guidance of the Executive Engineer Buckingham Canal Division.

2. The report will be forwarded in original to the Superintending Engineer who will return it with the Executive Engineer's remarks on the various points requiring explanation.

WCM 9.2.89

Supdg Engineer II Circle with report in original Examiner P. W. Accounts. ✓ Supdg Cir

18/2/89

15