CURRENT No. 4049.

JUDICIAL DEPARTMENT.

16/

(Miscellaneous.)

10 S.C
Recd: 31.5.94

G.O., 19th May 1894, No. 1206.

*Government Servant convicted of an Offence.*—Directing that a notification be published in the *Fort St. George Gazette* declaring Râju Naikan, who has been convicted of an offence under section 381, Indian Penal Code, and dismissed from the appointment of Second-class Warder, Central Jail, Vellore, to be ineligible for further employment in the public service.

No. 1429 W. dt 8th June 1894

B/

Communicate to Offices of the Sec. Dept.

8 46

Chs 4.6.94

2 Copies to Secy 27-6-94.

Chs 9/6/94

Ch. S. for J. ✓
C. S. for Rys
Supt Jails ✓
Ch to Govt ✓
S. Supt. P. Prov ✓
Govt Proct ✓
Govt Pleader

D 9/6

INDEXED.

Chs 98 8/6 12/6 11/6

19TH MAY 1894, No. 1206, JUDICIAL.

GOVERNMENT OF MADRAS.

JUDICIAL DEPARTMENT.

READ—the following paper:—

From A. G. CARDEW, Esq., M.A., Inspector-General of Jails, to the Chief Secretary to Government, dated 7th May 1894, No. 2201.

I have the honour to request that the Government will be pleased to publish a notification in the *Fort St. George Gazette* prohibiting the re-employment in the public service of Ráju Naikan, late Second-class Warder, No. 17, of the Vellore Central Jail. This officer was detected on the 8th February last in the act of stealing a piece of tent-cloth (Government property) in the Vellore Central Jail and was convicted by the Vellore Town Sub-Magistrate of an offence punishable under section 381 of the Indian Penal Code and sentenced to six months' rigorous imprisonment and a fine of Rs. 50 or six weeks' additional rigorous imprisonment. The conviction and sentence have been upheld by the Joint Magistrate on appeal.

ORDER—dated 19th May 1894, No. 1206, Judicial.

The following notification will be published in the *Fort St. George Gazette*:—

NOTIFICATION.

Ráju Naikan, late Second-class Warder, No. 17, of the Vellore Central Jail, having been convicted of an offence under section 381, Indian Penal Code, and dismissed from his appointment, is hereby declared ineligible for further employment in the public service.

(True Extract.)

*Chief Secretary.*

To the Inspector-General of Jails.
,, all other Heads of Departments under the Chief Secretary.
,, all Departments of the Secretariat.
Gazette.

Exd. A. Raitt.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

**General. Account.**

READ--the following paper :—

No. 1752 B.

Inspection Report on the Accounts of the Presidency Workshops and Stores, dated 28th December 1893.

Submitted to Government for orders, special attention being invited to the following portions of the report :—

2. *Paragraphs* 8, 14 *and* 18 *to* 21.—As already fully explained in office-note No. 35-A, dated 13th July 1892, printed with G.O., No. 2593 W., dated 19th September 1892, it would be correct to levy—

(i) a percentage for "General charges" *on labour only* (*vide* Public Works Department Code, volume II, chapter I, paragraph 164) : a percentage on value of material is contrary to rules ;
(ii) a separate rate for such charges for each shop ;
(iii) a charge for machinery ;
(iv) an additional charge, in proportion to the weight of material, to cover cooly hire, and such petty charges as cannot be allocated to any particular job, or do not specially pertain to the operations of any particular shop ;

and it is desirable that the *data* on which the several rates are framed, and the periodical results of their working, should be recorded in writing.

3. *Paragraphs* 10 *and* 15, *and items* 3, 5 *and* 6 *of Appendix B.*—The profit of Rs. 1,731-13-4 during 1892-93 being due to the levy of high percentages (15 per cent. on material and 30 per cent. on labour) during the last half of the year, it is clear that the procedure in force is indefensible ; percentages should be so fixed as to merely cover the outlay actually incurred on "General charges" and should not be a source of profit ; for, this could only be secured by additional and uncalled for debits to works.

4. Charges for freight, &c., incidental to the despatch of jobs, should be debited to them direct (fines for bad workmanship being taken in reduction of charge to jobs), and should not on any account be treated as "General charges."

5. The transactions referred to at items 3, 5, and 6 of appendix B further indicate that the "General charges" account is not kept on a sound basis, and that there are many irregular credits to this head which inordinately and illegitimately swell the nominal profits under it.

6. *Paragraphs* 10, 15, 22, *and* 23.—The foundry accounts should be kept as described at paragraph 23.

7. It is by no means sufficient that an officer's accounts should be compiled to his own satisfaction : they should also be *correct* (Code volume II, chapter II, paragraph 3). There should be no difficulty in *recording* the results of actual experience for the guidance of the office, and the procedure in force for adjustment of the value of outturn as described at paragraph 22 is therefore most unsatisfactory.

8. *Paragraphs* 15 *and* 24.—It should be unnecessary to point out that it was decidedly irregular to clear the loss on *Foundry* against the profit on *General charges* ; and since accounts should exhibit actual results, it is evident that that loss is attributable to outturn being arbitrarily valued instead of at certain fixed rates deduced from actual cost (*vide* paragraphs 11 to 17).

9. *Paragraph* 25.—No change in present procedure is advocated, as the Government of India forms would be unsuitable for the numerous and varied transactions of these shops.

10. *Paragraph* 27.—The remarks at paragraphs 6 and 8, above, apply with equal force to the special jobs detailed in paragraph 27 (*a*) of the report. The object of keeping distinct accounts for these special jobs is defeated when the outturn rates are not based on actual cost in the shops; and that this is not the practice is clear—

(i) from the explanation at paragraph 27 (*c*) of the credit balance against "Brass badges account;"

(ii) from the manner in which, as indicated at paragraph 28, the credit balances against some accounts were manipulated in March 1893 (*vide* paragraphs 11 to 17).

11. *Paragraph* 28.—The instances, noted at paragraph 28 (*b*) and item 3 of appendix B, of charges to jobs in excess of actual cost, show that the practice (i) of working without rates or estimates, and (ii) of increasing the cost of articles to what the General Superintendent *considers* they are worth, must necessarily result in the manipulation of details to work up to totals; and the natural corollary is that no value can be attached to the books as affording a correct record of the cost at which articles are turned out, nor can any reliance be placed on the *data* they furnish for estimating cost of future similar jobs.

12. To illustrate these remarks it is necessary that the irregularities brought to light in paragraph 28 of the report should be analyzed. For instance:—the estimated cost of making 20 Grainger's pan scales for the Board of Revenue having been considerably exceeded, the following sums were transferred to credit of that job to cover the excess:—

(i) ascertained profits on four other jobs aggregating Rs. 206–1–6.

(ii) imaginary savings on nine other jobs aggregating Rs. 310–4–3.

Such a procedure was irregular in the extreme: and the irregularity is intensified by the fact that in 11 of the cases, out of 12, *other* customers were made to pay for the excess on the job for the Board of Revenue.

13. In reference to the so-called "profits," amounting to Rs. 206–1–6, all that need be said is that, unless the order for seals was a large one, the estimate must have been very loosely framed to admit of a profit of Rs. 200.

14. But it is in connection with the imaginary savings of Rs. 310–4–3 on the nine jobs specified in the tabulated statement in paragraph 28 of the report that the gravest irregularities occur. In the first place, no estimate of the cost of each job was framed as clearly required by rules; and in the next place the actual ascertained cost of each job was manipulated to work up to what the Superintendent had decided the job was worth, *regardless of facts*.

15. Take the first item in the statement. The Conservator of Forests sent in an order, and the Workshop Superintendent, *without working out anything in the shape of an estimate*, fixed the cost at Rs. 400, *plus* 25 per cent. for indirect charges, making a total of Rs. 500. The job was completed at a cost of Rs. 342–10–4; but to work up to the Superintendent's idea of what it was worth, Rs. 57–2–0 were added, making the cost Rs. 399–13–2. The difference of As. 2–10 between this amount and Rs. 400 was reserved to meet the charge for cooly hire in despatching the articles; and the Rs. 57–2–10 thus obtained, by a fictitious debit to work done for the Conservator of Forests, was credited to the job for the Board of Revenue on which the estimated cost had been exceeded.

16. The same principle was applied to the other eight jobs: but the unreliability of the Superintendent's arbitrary valuation of each job is most strikingly seen in reference to the 8th item in the statement. The direct charges amounted to only Rs. 7–13–3, but they were fictitiously increased to Rs. 36–4–0: the total cost, including 25 per cent. for indirect charges, amounted to only Rs. 9–12–9, but Rs. 45 were charged.

17. No further comment is needed to condemn the procedure that has been brought to notice in this portion of the report.



18. *Paragraph* 29 (*b*).—The total absence of any details of timber beyond the money account of charges and recoveries is a very serious irregularity, and calls for special explanation with reference to Code volume II, chapter II, paragraph 2.

19. *Paragraph* 29 (*d*).—Attention is invited to the fact that on 1st July 1893 *manufactured articles* valued at Rs. 2,929–1–2 (*vide* appendix A) were held against the sanctioned reserve limit of Rs. 5,000 for *raw materials*; of these articles, those marked * were manufactured and kept in hand to admit of prompt compliance with orders from other departments, but as the demand for these articles has now ceased, they are likely to remain undisposed of for an indefinite period. They should apparently be disposed of as ordered in G.O., No. 2400, dated 29th August 1892.

20. *Paragraphs* 30 *and* 31.—The transfer of unsawn timber, &c., to stores as suggested by the inspecting officer would merely remove the debit from one account to another; but it is considered that the submission to audit of account of "materials in hand" in the form prescribed for half-yearly stock returns would afford a useful check in the following respects, viz.:—

(i) that stock is taken periodically;

(ii) that agreement of actual and book balances is made half-yearly;

(iii) that manufactured articles are not allowed to accumulate as raw material;

(iv) that surplus stores are disposed of in accordance with the orders quoted in paragraph 19, *supra*.

21. *Paragraph* 32.—There is no doubt that the trouble involved in accounting for such petty items is totally incommensurate with the value of the work done; and it, therefore, does appear desirable that some limit should be fixed below which jobs for other departments, &c., should not be undertaken. At the same time, it is worth considering that if the workshops must be maintained (*vide* paragraph 38), these outside jobs help very materially in keeping them up when departmental work is slack; and the limit would accordingly require to be fixed so as to retain as much of this work as possible.

22. *Paragraphs* 33 (4) *and* 41 (*b*) *and* (*c*).—Instructions have already been issued on these points to all Executive Engineers.

23. *Paragraph* 33 (6).—The charges (*a*) and (*b*) call for explanation; and in the case of (*b*) a refund appears imperative, as there is no rule which permits charges for carriage of *tappal* to an officer's house.

24. *Paragraph* 33 (9).—This is a most irregular procedure and should cease.

25. *Paragraph* 34.—Early steps should be taken to get rid of these surplus articles (*vide* G.O., No. 2400, dated 29th August 1892).

26. *Paragraph* 35 (1).—In addition to the blackboards, proper working plans and estimates should be prepared for permanent record before the commencement of a job.

27. *Paragraph* 35 (6).—For the reasons advanced by the inspecting officer, the Superintendent's proposal to adopt the unit system for all shops is not desirable.

28. *Paragraphs* 37 (*d*) *and* 45 (4).—Sufficient care does not seem to be exercised in the upkeep of service books. The defects pointed out should be rectified forthwith.

29. *Paragraph* 42 (*d*) *and item* 10 *of Appendix C.*—Early action should be taken to secure an agreement between the several stock returns.

30. *Paragraph* 42 (*f*).—There is no objection to the keeping up of these boards if they facilitate work.

31. *Paragraphs* 44 *and* 46.—The simplified procedure for accounting was fully discussed with the General Superintendent before it was approved by Government in G.O., No. 1224 W., dated 13th April 1892, and its non-introduction requires explanation (*vide* paragraph 38).

32. *Paragraph* 45 (3).—A fresh agreement should be entered into.

33. *Item* 4 *of Appendix B.*—Nothing is more objectionable than to raise or withhold a debit solely because a division has or has not funds available to meet it;

but in this case the irregularity is far more serious, as the Salem division was debited with Rs. 1,436–2–4 in excess and to square this the job was debited with a fictitious item "value of timber specially purchased." This was a purely imaginary transaction, as it is not supported by any entry in the initial accounts and calls for special explanation.

34. *Item* 3 *of Appendix C.*—Such vouchers should not be retained, but should be sent with the advices of debit to the divisions concerned.

35. *Paragraphs* 1, 38, 39 *and* 48 *to* 52.—However simple and desirable the proposal to amalgamate the two offices may be when their accounts are what they ought to be, it does not commend itself to me at present; but some reduction of establishment is feasible. Considering, however, the numerous defects disclosed in the report, I do not at present advocate the large reductions proposed by the inspecting officer. I however do agree with him that the services of the two storekeepers may be dispensed with (paragraphs 38 and 48 (*a*) of report). Further reductions may be considered later on.

36. By way of recapitulation, the following are enumerated as the most serious of the irregularities brought to notice in Mr. Yeat's report:—

I. Improper use of the account "General charges" (paragraphs 3, 4, 5 and 8 of this note.
II. Absence of an estimate for each job (paragraphs 11 to 17).
III. Unreliable records of actual cost of jobs (paragraphs 11 to 17).
IV. Unauthorised procedure in diverting imaginary savings on certain jobs to cover an excess on another job (paragraphs 15 and 16).
V. Objectionable accumulation of stores and material (paragraphs 19, 20 and 25).
VI. Fictitious debit to a division simply to enable the Executive Engineer of that division to work up to his full grant (paragraph 33).
VII. Impropriety of certain charges to the State (paragraph 23).

37. Thus far I have dealt only with matters brought to notice in the report that accompanies this note; but the following irregularities are mentioned in connection with the verification of the store ledgers which has still to be completed by my office:—

i. Stock rates have not been adjusted, nor have half-yearly balances been agreed, for three years.
ii. Surplus articles brought on to stock on 21st April 1891 have not yet been disposed of in accordance with G.O., No. 2400, dated 29th August 1892.
iii. Day-books are "signed" by the Superintendent by means of a stamp.
iv. Want of scrutiny of issue rates. In cases where the actual balance of material was *nil*, the books showed a *debit* balance, which, to clear the account, was charged off to the workshop, *as the largest consumer.*
v. Certain articles received from the workshop on 28th August 1891 had not been priced up to 31st December 1893.
vi. The same objection applies to the following articles:—
(*a*) Lamp-black received from Kurnool division in August 1891.
(*b*) Supplies from Gun-carriage Factory in August 1891.
vii. The correct charge for an issue to workshop on 20th August 1891, as recorded in ledger No. 6, folio 50, was Rs. 1–15–8, but through an error in calculation Rs. 31–4–0 were charged.
viii. 491 lbs. of copper tape were issued to workshop on 28th August 1891, *without* being passed through the ledger or charged for; but when the same article was returned in March 1892, credit was afforded for the value and stock debited, although stock had not been relieved of the value when the article was issued.

38. My own views, as expressed in my note No. 120-A, dated 29th March 1893—a reconsideration of which is earnestly asked—are that the interests of the State would be best served by closing the shops; but if they are an absolute necessity,



I would ask the intervention of Government against the tendency of the Superintendent (*a*) to set aside clearly defined rules and orders and (*b*) to introduce innovations in procedure, however commendable they may appear to himself; and I may add that until the first principles of accounting are recognized, *viz.*, that an *account* should be *a record of facts*, the accounts of the Presidency workshops and stores cannot be expected to be in a satisfactory state.

MADRAS,
5th May 1894.

(Signed) I. S. SHERLOCK-HUBBARD,
Examiner, Public Works Accounts.

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ENCLOSURE.

Report of an inspection of the Accounts of the Superintendent, Presidency Workshops and Stores, made by Mr. S. K. Levett Yeats (Examiner, 4th class, 3rd grade), Deputy Examiner, Public Works Accounts, Madras, between the 14th and 22nd December 1893.

A.—GENERAL.

A joint report has been submitted for the two offices, as, apart from the usual points taken up in inspection reports, the questions of simplification of accounts, reduction of establishment, and the possibility of amalgamating the two offices are dealt with herein. The usual test-audit was made, the accounts for september 1893 having been selected for this purpose. It may be added that the paragraphs dealing with reduction of establishment (38, 39 and 48 to 51) propose two schemes, involving a total annual saving of Rs. 3,855 and Rs. 5,260, respectively.

2. The offices, workshops, and stores, were examined in AUGUST and DECEMBER 1889 by the accounts branch; and the examiner devoted a day in MARCH 1892 in investigating the elaborate system of accounting for stores from ENGLAND. The suggestions then made by him were approved by GOVERNMENT in g.o., no. 1224 W., dated 13th APRIL 1892. How far these suggestions have been carried out is shown below—*vide* paragraphs 42, 43 & 46.

3. The following officers have held the office of superintendent, workshops, and stores, since the date of last inspection:—

Lieutenant-Colonel Clarke, R.E., Executive Engineer, 1st grade, to september 1890.
Mr. L. L. Wickham, Assistant Engineer, 2nd grade (new), from september 1890 to the present time.
Mr. Francis, Sub-Engineer, 2nd grade, officiated from 10th APRIL 1890 to 23rd MAY 1890.

4. The following accountants have been attached to the divisions since last inspection:—

Workshops ... Mr. Theagarajier to NOVEMBER 1890.
Mr. V. Rao to JANUARY 1892.
Mr. B. Pillay (at present in charge).

Stores ... Mr. P. S. Mudelliar to JANUARY 1893.
Mr. Sheshiah to APRIL 1893.
Mr. Krishna Rao to JUNE 1893.
Mr. Ryan (at present in charge).

5. There are no sub-divisions, or imprests [see, however, paragraph 33 (9)] and payments are made by the superintendent who has a drawing account on the BANK OF MADRAS.

B.—SYSTEM OF ACCOUNT IN FORCE IN THE WORKSHOPS WITH SUGGESTIONS FOR SIMPLIFICATION OF WORK AND REDUCTION OF ESTABLISHMENT.

6. The system of accounts approved for the workshops is that laid down in g.o., no. 858 W., dated 30th MARCH 1886. Since then there have been some modifying influences at work; certain suggestions made from time to time in audit; the issue of standing order no. 270 to chapter XIII, Volume II, Public Works Department Code; and the proposals made, but *not* sanctioned by government—*vide* g.o., no. 2593 W., dated 19th september 1892, which are, however, to some extent, acted on as will be shown below. The GOVERNMENT OF INDIA forms have also taken the place of the local forms in many instances.

7. The main points of the system approved of for the workshops in g.o., no. 858 W. of 1886, are as follows:—

I. The accounts of the workshops to be shown in a suspense account called "workshop manufacture suspense," which will be relieved by debit to divisions, departments, &c.
II. Deposits and adjustments in advance of completion of work to go to a subsidiary account called "sales."*
III. Jobs of a trifling character to be considered as works of and under Rs. 2,500 each, for which a monthly adjustment is not necessary.

* No longer in use, the deposit account being alone necessary.

IV. The charges for work to be as follows:—

(*a*) Work for the public works department to be charged for at the actual cost of labour and materials, *plus* a percentage of the general and contingent charges for manufacture, distributed at the discretion of the general superintendent to works in hand (see public works department code, XIII 91-Q).

(*b*) For other work an additional 25 per cent.,* above the charge to the public works department, *i.e., an additional 25 per cent. on labour, materials, general and contingent charges.*

(*c*) The following table shows briefly how this 25 per cent. on account of indirect charges is arrived at, and how the proceeds or loss is adjusted:—

| | | | |
|---|---|---|---|
| (i) Interest on capital | 5 per cent. | Proceeds to provincial revenue. | |
| (ii) Depreciation | 2 do. | | |
| (iii) Establishment | 10 do. | Proceeds to reduce establishment and tools and plant. | |
| (iv) Tools and plant | 1 do. | | |
| (v) Additional percentage for profit. | 7 do. | Proceeds to provincial revenue. | |
| Total | 25 | | |

V. That estimates for purely departmental work be treated as merely probable estimates; but that estimates for other departments should be held to be binding, unless otherwise stipulated by the superintendent.

8. The procedure laid down in standing order no. 270 to chapter XIII, volume II, public works department code, agrees in its main principles with that described in paragraph 6. There are differences in the detail of working and in the forms which are dealt with as the points are taken up. It should, however, be noticed that the principle of distributing general charges roughly over jobs in hand in proportion to the *labour* charges only on each work is laid down in paragraph 91-Q, chapter XIII, volume II, public works department code; and that this principle is not compatible with the fixing of a uniform rate for each shop.

9. The accounts of the workshop manufacture suspense account are divided into the following heads, the adjustment of charges against which is effected in the following manner:—

| | Charges relieved by debit to— |
|---|---|
| (i) Works for the public works department | ... transfers public works department, divisional. |
| (ii) Works for other government departments | ... miscellaneous advances of Rs. 50 and under. If over Rs. 50 by debit to the departments concerned. |
| (iii) Works for military department and state railways. | ... transfers public works department, buildings and roads and state railways. |
| (iv) Works for outsiders ... ... ... | ... deposits; and the difference of cost in excess adjusted through miscellaneous advance account. |

10. Subsidiary to these are the following accounts, viz.:—

(*a*) *General charges.*— } All expenditure under these heads (*a*) and (*b*) are relieved by
(*b*) *Foundry account.*— } charge to jobs under one of the heads (i) to (iv). These accounts should close without a balance at the end of each year; but in practice, owing perhaps to faulty accounting, there are balances. If a debit balance, the amount is charged to tools and plant, if a credit, balance is carried to provincial revenues.

(*c*) *Materials on hand.*—Relieved by charges to jobs; balances, if any, are brought forward year by year. The limit of raw material is Rs. 5,000—*vide* paragraph 4, examiner's no. 125 W., dated 25th February 1886, printed with g.o., no. 858 W. of 1886.

11. The monthly accounts submitted by the workshop to audit are prepared in the following schedules. It will be observed that the forms of accounts and schedules vary, except in the instances specified, from those laid down in g.o., no. 858 W. This is due to the fact that it was necessary for the sake of uniformity to use the government of india forms as far as possible owing to the introduction of the public works department code (India) in Madras. As the workshops

* Military works and state railways are charged 10 per cent. only on this account (g.os., nos. 431 W. and 3064 W. of 1891).



are not a sub-division, the forms of monthly account current and schedules prescribed in standing orders nos. 270 of 1892, 287 of 1893 to volume II of the public works department code, could not well be introduced:—

| | | |
|---|---|---|
| (1) | Account current ... ... ... ... ... | India form public works department 27. |
| (2) | Register of revenue realised ... ... ... ... | 32-H. |
| (3) | Schedule of expenditure against budget grant ... | 32-O. |
| (4) | Do. of debits and credits to transfers ... ... | India forms. |
| (5) | Do. of establishment charges ... ... ... | M 50. |
| (6) | Do. of workshops manufacture suspense ... | M 6 W. |
| (7) | Do. of deposits ... ... ... ... ... | 32-U. |
| (8) | Do. of miscellaneous advances ... ... ... | 32-R. |

12. In addition to these the following subsidiary accounts are maintained:—

(1) Register of general charges.
(2) Foundry book.
(3) Preliminary statement book for preparation of workshop manufacture suspense account.
(4) Materials in hand account.

13. The books maintained in the office are—

(*a*) *For cash and book adjustments.*—The accounts prescribed in the public works department code for executive engineers.

(*b*) *For stock.*—None, there being no stock in the division in the ordinary sense of the term. There is, however, a certain quantity of stores and material with the workshop storekeeper, and for this a stock "sub-ledger," as it is called, is maintained showing numerical quantities of receipts and issues. The balances do not appear to have been tested by actual count.

(*c*) *For tools and plant.*—The half-yearly tools and plant register and supplement thereto is maintained.

(*d*) *For works.*—The following accounts are kept up—

In shops—
1. Boards for guidance of shops.
2. Board sheets for sundry stores.
3. Monthly tickets.
4. Statement of fuel issued.

Initial accounts—
5. Workshop order.
6. Time sheets.
7. Indents on stores.
8. Muster books.
9. Transfer order and voucher.
10. Requisition order.

Record of outlay and stores—
11. Works books.
12. Stock sub-ledger.

Administrative watch—
13. Index of orders received.
14. Register of finished articles and intimation of despatch of finished articles.
15. Register showing progress and check over bills.
16. Workshop receipts.
17. Register of arrears of labour.
18. Bill book.
19. Receipt book.

(*e*) Miscellaneous—
Register of sanctioned estimates.
Register of appropriations.
Applications for re-appropriation of budget grants.
Register of service books.
Register of service labels.
Register of letters received and issued.
The usual copies of the codes, files of orders, &c.

14. *General charges.*—These may be defined as those charges, contingent on the execution of jobs, which cannot be allocated, or which it would be inconvenient to allocate to any particular job, *e.g.*, petty supervision, cost of working engines, fuel, petty repairs to and cleaning machines, &c. The rules regarding the adjustment of these charges are quoted in paragraphs 7-IV (*a*) and 10 (*a*), (*b*) of this report. The superintendent in distributing these charges to jobs appears to be adopting a modified form of the procedure which was *not* sanctioned by government—*vide* correspondence in connection with g.o., No. 2593 W., dated 19th september 1892. The procedure appears to be to distribute general charges to jobs as follows:—

(1) Foundry shops.—petty supervision, &c.
(2) Fitter's, carpenter's, and instruments shops, 50 per cent. of the cost of labour employed.
(3) Smith's shop, 25 per cent. of cost of labour employed + ½ rupee per unit * on account of forge charges.

* What is meant by unit is explained in paragraph 16 of this report.

(4) Two per cent. on the value of materials used.
(5) Ten per cent. on contract labour.
(6) For each machine at work ½ rupee per diem.

15. Under miscellaneous expenditure chargeable to general charges will be found such items as cooly-hire, packing, painting, harbour dues for despatch of jobs, and railway freight on jobs and in many cases fines for bad workmanship. It is a matter of doubt if cooly-hire, packing, and painting should go to this head; but harbour dues, railway freight and fines for bad workmanship should certainly go to the jobs concerned. To the end of october 1893 railway freight has amounted to Rs. 2,091–6–6, the adjustments against this amount to Rs. 1,290–11–0, showing an unadjusted balance of Rs. 800–11–6. The net debit to general charges at the end of october 1893 amounted to Rs. 1,530–8–11; but this figure includes the Rs. 800–11–6, which should not have been debited to general charges. The profit at the end of march 1893 on general charges was Rs. 1,731–13–4, of which Rs. 1,393–10–3 were set off against the loss on foundry, and the balance credited to provincial revenue. It is understood that this profit was due to a charge of 15 per cent. on materials and 30 per cent. on labour during the last half of the year; the rate during the first half of the year was 10 per cent. on labour and materials. This, in itself, is almost sufficient to show that this account is not treated on the basis on which it should be—*vide* paragraph 10 (*a*), (*b*).

16. The register of general charges is in manuscript *; it has no index, and is in two parts.

Part I shows in detail for the month the expenditure incurred on engines, steam hammers and forges. This is abstracted into

Part II, which shows all the debits to general charges, and all the credits on the basis explained above. It will thus be seen that Part I of the register of general charges is really a day book for the engine, steam hammer and forges, and shows on the one hand the expenditure incurred on their up-keep, and on the other the credits by charges to the main account of general charges and thence to works. The *unit* referred to in paragraph 14 (3) is, therefore, the actual cost per day of working these machines, and the difference between the debits and credits shows whether the machines are working at a profit or at a loss. The value of the unit is necessarily subject to modification, the present unit = 8 annas.

17. The 2 per cent. on value of materials, although a general charge, is not traceable in the register, but appears to be added to each job in the work books.

18. It is evident then that instead of roughly dividing the general charges of the workshops rateably in proportion to the labour charges as is required by rule, the debits to jobs consist of—

(*a*) a unit charge.
(*b*) a percentage charge.
(*c*) a percentage charge (2 per cent.) on materials.
(*d*) miscellaneous charges already criticised in paragraph 15 of this report.

19. *The percentage charge on materials* is, it is submitted, a charge that should not be made; there is no rule for it; the materials have already been charged for, and it merely unduly enhances the cost of work. The removal of the entries of railway freight, harbour dues, &c., which are *entirely*, not *rateably*, chargeable to jobs, will reduce a considerable number of entries. As regards the percentage charges for shops it was not discoverable on what data they are framed; and the calculation of charges to jobs on this account takes a considerable time. As regards the unit debit, this also is not based on anything beyond, perhaps, what is called "experience;" the actual number of units chargeable to a job is merely put down. The entry is most probably right; it may on the other hand be wrong.

20. Now bearing in mind that these general charges have, according to rule, to be roughly distributed (no absolute exactness is wanted, though, as far as possible, this is desirable) over the labour charges on jobs, it is suggested that the simplest and easiest process would be to take the percentage of the general charges during the month to the total of labour charges (exclusive of petty supervision and other labour directly charged to general charges); and add a percentage at this rate on the labour charges of each job on account of general charges. The figures are easily obtainable; the total of the labour charges required is at once accessible from the muster book; the total of general charges is the total of the Dr. side of the general charge register, and the entries in the work-books would entail no more trouble than they do now. If a work is begun and finished in the same month, there is no difficulty; if a work is carried on for many months, the general charges will be added monthly in the work-book at the percentage on the labour employed during the month. The total of these monthly charges to works will represent the credit to general charges, and the account will ordinarily close without a balance if figures are taken in round numbers. The monthly percentages thus struck will also be a very fair guide to the superintendent in estimating what the general charges on jobs undertaken in

* Should be printed to save clerical labour.



the workshops should be. It is also a matter of doubt if there is any practical use in maintaining an account of the engine, steam hammer and forge as is now kept up. It would, it is considered, be sufficient for all purposes if the expenditure incurred on these was alone recorded; it is submitted that it is impossible to estimate the earnings which reduce the expenditure on these accounts, and they should be treated merely as other items of the general charge account.

21. To summarize, if the proposals made in paragraphs 19 and 20 are accepted, they will effect a saving of nearly 30 per cent. of clerical labour and result—

(1) In saving of clerical labour as regards—(*a*) correct charging of items to the general charge account; (*b*) calculating percentages; (*c*) distributing charges; (*d*) curtailment of the credit entries in part I of the general charge register.
(2) In fixing the general charges for jobs on the basis approved by the government of india.
(3) In enabling an almost accurate estimate of what the general charges on a job will amount to by means of the monthly percentage rates.
(4) In making the general charge account what it is intended to be, namely, the account subsidiary to workshop manufacture suspense, through which charges which cannot be allocated to any particular job are adjusted; and this, it is submitted, is not the case now—*vide* remarks (*ante*) in connection with harbour dues, railway freight, &c.
(5) It may be added that even if it is considered necessary to keep up the information now shown in part I of the general charge register, it is not necessary to do so in the present form. Instead of as now keeping up part I in which monthly totals and day-by-day credits are shown, the credits could be entered in the registers of general charges, part II, in vertical columns, thus avoiding the necessity of transcribing entries.

22. *General foundry account and foundry book—vide* para. 10 (*a*), (*b*). This account is recorded in two parts: one for brass and the other for iron castings. The debits to the account consist of the following items:—

(*a*) General repairs—labour and materials.
(*b*) Moulding charges.
(*c*) Unit charges for machinery employed.

The credits represent the value of outturn. As regards the debits they are on a fair basis; but there is no record to show on what basis the outturn is calculated. The value of the outturn is merely an arbitrary figure; and the procedure adopted is as follows. Before the *work-books* for the month are closed, the superintendent enters or gives orally the value of foundry work to be charged to each job. In other words the work-book is for this purpose the *initial* instead of the *final* record of the value of foundry outturn. There is no rate-table to guide the office, and in the temporary absence of the superintendent it would be impossible to allocate these charges or close the accounts. The credits to this account are again based on "experience." It is clearly impossible to adjust the foundry account through general charges; and it is clear also that an account should be kept of the value of outturn in order that the credits to this account may not be based on arbitrary figures, which may or may not be correct, and which throw a doubt on the correctness of the financial results of the up-keep of the foundry.

23. Formerly an account was maintained (now discontinued) showing the cost of each casting; the quantity of raw material (pig iron, old iron, coke) issued, the number, weight, and description of the articles outturned, the number of work order to which they related, the materials at site and wastage was recorded therein, and this was the basis on which the outturn was valued according to the weight and class of castings, at rates fixed for each class of casting from time to time. It is submitted that the information recorded in this account should be utilised as a basis on which a rate-list of castings should be prepared, and that the outturn on the foundry should be calculated on this rate. If the results are a loss, the rates should be increased to cover the loss and *vice versa*; and there will be by this process an account of foundry operations kept on reliable data, with rates that can be watched monthly. The record of these rates should, of course, be kept in the foundry book. At present the foundry account cannot be said to be in a satisfactory state.

24. The loss on working the foundry to the end of march 1893 was Rs. 1,393–10–3 adjusted as described in paragraph 15. The nominal loss on this account to the end of october 1893 amounts to Rs. 770–2–0. It is not possible to tell how much of this represents materials in hand, and how much represents actual loss due to the system of calculating outturn which is in force.

| | Rs. | A. | P. |
|---|---|---|---|
| Foundry debit balance .. .. .. .. | 1,919 | 14 | 11 |
| Brass credit balance .. .. .. .. | 1,149 | 12 | 9 |
| Net debit .. .. .. .. .. | 770 | 2 | 2 |

25. *Workshop manufacture suspense account.*—The record of this is kept in two books—

(*a*) The preliminary statement of workshop manufacture suspense.
(*b*) The schedule of workshop manufacture suspense.

The preliminary statement is an account in the following form :—

| Requisition number. | Folio of work book. | Balance. | Charges. | | Total. | Total to end of the month. | |
|---|---|---|---|---|---|---|---|
| | | | Daily labour. | | | Adjusted to end of last month. | Adjustments during month. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | | | | | |

| Total to end of the month—*cont.* | | Credits to works. | Balance unfinished works. | 25 per cent. charges. | Profit. | Loss. | Bill. |
|---|---|---|---|---|---|---|---|
| Unadjusted balance. | Grand Total. | | | | | | |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | | | | | | |

This is posted directly from the work-books, and is in parts : one for the public works department and the other for outsiders. The totals are posted into the schedule of workshop manufactures, madras form 6-W. It is submitted that this account is in unnecessary detail, that it means practically a copying out of the total entries in the work-books, and that it is not in the prescribed forms. It takes up more than half the time of one clerk during a working month to prepare. It is recommended that the workshops manufacture suspense account as now submitted be abolished, and the record of this account submitted in public works department form 32-Q, which could be easily adapted to the purpose by entering in the column name of work, the various sub-heads of the workshops manufacture account; or as an alternative process that the schedules of work done form G (now W-7) prescribed in standing orders nos. 270 and 287, volume II, public works department code (chapter XIII, paragraph 91-K), be submitted for each sub-head of workshop manufacture suspense. This latter procedure is perhaps easier, whilst equally convenient for account purposes as public works department form 32-Q ; but in any case it is most strongly urged that one or other of the processes recommended here be adopted, and the present unwieldy procedure abolished.

26. *Workshop manufacture suspense balances.*—At the end of october 1893 (the last month for which complete accounts were available at the time of inspection), the unadjusted balance on account of workshop manufacture suspense represented an outlay of Rs. 69,253–4–4, which includes an item of Rs. 20,930–2–3 on account of materials in hand (see paragraphs 29 and 30 of this report).

27 (*a*) (*I*) *Works for the public works department.*—The balance of unfinished works, as shown by column 17 of the schedule for september 1893, viz., Rs. 36,742–9–2, includes the balances of the following manufacturing operations :—

| | Rs. | A. | P. |
|---|---|---|---|
| Punches account ... ... ... .. ... ... ... | 34 | 0 | 11 |
| Scales account ... ... .. ... ... ... ... | 310 | 8 | 6 |
| Imposing table plates for stock ... ... ... ... ... ... | 46 | 10 | 1 |
| Seals account ... ... ... ... ... ... ... | 318 | 4 | 0 |
| Brass badges account ... .. ... ... ... ... ... | —207 | 6 | 11 |
| Levelling staves account ... ... ... ... ... ... ... | 128 | 4 | 6 |
| Bolts for stock ... ... ... ... ... ... ... | 33 | 7 | 8 |
| Measuring chains ... ... ... ... ... ... ... | 57 | 0 | 4 |
| Bill-hooks for stock ... ... ... ... ... ... ... | 16 | 2 | 5 |
| Silver badges account ... ... ... ... ... ... ... | — 1 | 1 | 3 |
| Total ... | 735 | 14 | 3 |

(*b*) The following remarks are offered in connection with the procedure as regards debits and credits to these accounts. The debits are the charges actually incurred as recorded in the work-books, the credits are based upon no rate lists or schedule of rates. The value of outturn is assigned by the superintendent, it was stated, in consideration of the cost at which similar articles



were turned out elsewhere ; but this is not the basis on which rates should be fixed. It is obvious that the rates should be fixed on the cost of manufacture *in* the workshops, or no correct financial result of operations can be shown.

(*c*) Regarding the credit balance under brass badges account, the general superintendent explains that his rates of outturn being *fixed* in consideration of the cost at which similar articles are turned out elsewhere outside the workshops, the credit balance is due to an insufficient charge made to the badge account for general charges.

(*d*) All these operations have now been in progress for nearly a year. There is nothing on record to show that the balances have ever been proved by comparison with the value of the assets.

28. The result of the system of working without estimates or rates based on sufficient data is that the workshops are more or less working blindly, and it is often necessary to make adjustments in accounts which would otherwise not be made. An instance of this is given in requisition no. 193 of 1891–92 ; 20 grainger's pan scales were ordered by the board of revenue. The actual cost exceeded the estimate,* and in order to counterbalance the excess, the following procedure was resorted to in the accounts for march 1893 :—

(i) credit balances on the following accounts were diverted to the requisition in question :—

| | Rs. | A. | P. |
|---|---|---|---|
| Seals account ... ... ... ... ... ... ... | 200 | 0 | 0 |
| Brass badges account ... ... ... ... ... ... ... | 2 | 4 | 0 |
| Medals account ... ... ... ... ... ... ... | 1 | 11 | 8 |
| Stencil-plates account ... ... ... ... ... ... | 2 | 1 | 10 |
| Total ... | 206 | 1 | 6 |

(ii) charges in excess of actual cost on the following jobs were similarly transferred :—

| Reference to book and folio. | Requisition number. | Description of work. | Actual charges. | Amount charged. | Difference credited to Board of Revenue. | Reason for charging more than actual cost as can be made out from the work book. |
|---|---|---|---|---|---|---|
| | | | Rs. A. P. | Rs. A. P. | Rs. A. P. | |
| 1892–93. | | | | | | |
| B. I, P.D.F. 107 .. | 455 | Supplying two 60' measuring tapes, &c., for conservator of forests. | 342 10 4 | 399 13 2 | 57 2 10 | Added to bring up the cost to an estimated † amount of Rs. 500 (with 25 per cent. for indirect charges). |
| B. II, P.D.F. 20 .. | 856 | Making one large brass pan scale with maund weight, &c., for collector of kistna. | 71 11 5 | 182 14 8 | 111 3 3 | To bring up the cost to an estimated † amount of Rs. 224 (with 25 per cent. for indirect charges). |
| B. III, P.D.F. 3 .. .. | 396 | One pair of scales to weigh Rs. 100, with brass weights for collector of south arcot. | 25 14 7 | 54 10 5 | 28 11 10 | To bring up the cost to an estimated † amount of Rs. 68 (with 25 per cent. for indirect charges). |
| B. III, P.D.F. 27 .. | 292 | One pair of scales to weigh Rs. 100 for north arcot treasury. | 66 11 7 | 76 15 7 | 10 4 0 | To bring up to Rs. 92 † (with 25 per cent). |
| B. III, P.D.F. 37 .. | 525 | One pair of scales to weigh Rs. 1,000 for south arcot collector. | 58 10 8 | 75 15 7 | 17 4 11 | Do. do. |
| B. III, P.D. 48 .. .. | 232 | One pair of scales to weigh Rs. 1,000 for north arcot. | 71 1 6 | 75 6 5 | 4 4 11 | Do. do. |
| B. I, P.D. 23 .. .. | 492 | Supply of one scale with weights to board of revenue. | 7 13 3 | 36 4 0 | 28 6 9 | To bring up to Rs. 45 † |
| B. III, P.D. 107 .. .. | 277 | Three iron beam scales to weigh Rs. 600 with tripod stand for high court, madras. | 133 12 0 | 189 0 0 | 46 4 0 | To bring up to Rs. 75 † for each scale. |
| B. I, P.P. 22 .. .. | 6 | One money-weighing scale to weigh Rs. 1,000 for bank of madras. | 73 7 3 | 80 1 0 | 6 9 9 | To bring up to Rs. 100.† |
| | | Total .. | 851 12 7 | 1,162 0 10 | 310 4 3 | |

* The figure at which it was reported that the work could be done.
† What the general superintendent thinks the articles are worth. Not amount of regular estimates.

These adjustments are irregular.

29 (*a*) *Materials in hand.*—There are two accounts of this maintained: one a numerical ledger, or as it is called stock sub-ledger kept by the workshop storekeeper; the other a value account maintained in the office. The balances on this account at the end of october 1893 were—

| | RS. | A. | P. |
|---|---|---|---|
| Timber ... ... ... ... ... ... | 15,250 | 8 | 7 |
| Raw material ... ... ... ... ... ... | 2,750 | 8 | 6 |
| Ready-made materials ... ... ... ... ... | 2,929 | 1 | 2 |
| Total ... | 20,930 | 2 | 3 |

It will be observed that timber is not included in the raw material account.

(*b*) *Timber.*—No numerical account is kept of receipts, issues and balances; the workshop storekeeper, however, enters issues by him to jobs on indents. The timber value account is debited with the cost of logs, the cost of labour for sawing, &c. (no regular sawing account is kept), and this is relieved by charge to jobs at rates personally entered by the superintendent in each case. There is no record of the calculation of these rates. They are presumably based on the judgment of the superintendent in regard to the value of issues.

(*c*) The only measurement book in use in the shops is that for timber. It is defective in the following instances:—

i. Dates of measurements not always entered.
ii. Dimensions entered in ink and the contents in pencil (reverse of code rule).
iii. Entries not crossed off.
iv. Book not continuously written up. In fact as a measurement book it is not of much value.

(*d*) *Ready-made materials.*—It does not appear to have been the intention of Government that ready-made materials should be manufactured and held in the workshop suspense accounts. A list is attached to this report—*vide* appendix A—showing the manufactured articles kept in stock. It is recommended that steps be taken to get rid of these and the items removed from the materials in hand account.

30. As no actual stock has been taken of these materials and there have been several omissions and errors noticed in the test-audit—*vide* items 3, 4 and 7 to 9 of Appendix B to this report—it is not clear that the stock of materials in hand represents the book value.

31. It has been suggested that a half-yearly stock account of materials in hand should be submitted to audit. This appears to be unnecessary. The accounts of materials in hand could, however, be much reduced by the transfer of the unsawn timber and such materials as are not immediately required for works to stores, and the transfer to store or sale of such of the manufactured articles as are not required in the workshops. In fact the balance of materials in hand should be kept down as low as possible, and as requirements arise stock should be drawn from stores. This could be done with less trouble than there is now, and if the two offices are amalgamated the difficulty would be still further reduced.

32. *Miscellaneous advance account.*—At the end of october 1893 the unadjusted balance stood at Rs. 836–8–0. Many of the items represent jobs, the total cost of each of which is very small, *e.g.*, there was a job of 6 annas, another of 10 annas, another of Rs. 1–2–0. These items did not represent the unadjusted balance on jobs, but the actual cost of the whole job, and considering that they had to go through the process of entries in work-orders, indents, work-books, &c., and how almost impossible it would be to allocate charges on such petty items, it is strongly recommended that, except for departmental work, no job be undertaken in the workshop, the cost of which is under Rs. 50.

33. *Accounts of cash.*—These are in order. They, however, appear to call for the following remarks:—

(1) Public works department form 1—detail of cash balance is not maintained.

(2) Treasury balance certificate, Madras form no. 65 is used. Public works department form 20-B—a much simpler document should be used.



(3) A copy of the treasury balance certificate is kept. This is not necessary. If there are any uncashed cheques, they may be noted in the cash book at the end of each month.

(4) Much clerical labour can be saved in connection with the filing and numbering of vouchers. Vouchers are now filed in schedule docket order, and each voucher is given first, a cash book number, second, a schedule docket number, third, a central office number. It is thus impossible to trace vouchers from the cash book without great difficulty, and besides this there is the unnecessary numbering as described above. Vouchers should be filed in cash book order; all the numbers that are necessary to be given a voucher are the cash book number and the schedule docket number. The column central office number now used in the schedule docket form should be used for the *cash book* number of the voucher. There will be absolutely no difficulty in tracing a voucher recorded in this manner, and about a third of the clerical work spent under the present system could be saved.

(5) Attention is invited to standing order no. 134, form book, part I, as regards closing the cash abstract book.

(6) The following entries in the cash book appear to call for remark:—

(*a*) 16th August,—advance of pay to Mr Mathews, Rs. 5 (workshop manufacture).
(*b*) 1st september,—carriage-hire for taking tappal to superintendent's bungalow, Rs. 8, contingencies.
(*c*) 20th November,—batta for going to guindy, Rs. 12, workshop manufacture labour.
(*d*) 8th December, moiety of hire of bullocks and bandy, Rs. 17–8–0, charged to workshop manufacture suspense.

As regards (*a*) it seems doubtful if work establishment are entitled to advances. (*b*) This charge would appear to be one not properly debitable to government. (*c*) This represents an allowance for going beyond jurisdiction. There are apparently no fixed rules for such allowances which should receive the sanction of government. (*d*) One moiety is borne by stores, the other by the shops. The bandy is used for getting and sending off stores and completed jobs, &c.

(7) Copies of vouchers sent to audit need not be kept on any account. Duplicates of vouchers should *not* be kept. If, for any reason, a copy is required, it should be a certified copy not signed by the payee.

(8) Attention is particularly invited to note 4 to public works department form 26, part I, 4th edition, forms of the public works department. The observance of the instructions laid down therein would enable the accountant to make his work much easier.

(9) There are no imprests, but charges on account of railway freight, and contingencies are paid by the chief storekeeper, public works stores, from advances made to him but not shown in the cash book, or from his private purse, and then recouped. This is an arrangement which is against all rule and should be discontinued. It is not clear why, when there is a cashier attached to the division who has deposited a security of Rs. 300, it was necessary to make such payments through the stores division.

34. *Tools and plant.*—These accounts are in order. Actual count was last taken in october 1893. The superintendent stated that the following articles were not required in the shops; they might be got rid of either by transfer or sale:—

| | RS. |
|---|---|
| (*a*) Two engines, value ... ... ... ... ... ... | 4,200 |
| (*b*) One mortar mill ... ... ... ... ... ... ... | 1,000 |
| (*c*) One small stoking machine ... ... ... ... ... | 246 |
| (*d*) One iron-cutting circular saw ... ... ... ... ... | 1,900 |
| (*e*) One rivetting machine ... ... ... ... ... ... | 5,000 |
| Total ... | 12,346 |

35. *Accounts of works**—(1) *boards for guidance of shops.*—These are black-boards, on which when a requisition is received, dimensions are drawn and brief instructions entered for the guidance of shops. They bear the requisition number, and serve as a guide to the foreman in the shops and to the overseer to make out his indents of stores. They are all in the way of plan and estimate that is apparently used for jobs in the workshops.

* *Vide* paragraph 13 (*d*). Each sub-paragraph bears the number given to the form in that paragraph.

(2) *Board sheets for sundry stores.*—This is an account kept in the shops showing sundry stores and miscellaneous articles used, which go to general charges. It serves the purpose of an indent and a monthly sundry store account. The articles required are entered thereon by the overseer and supplied by the workshop storekeeper if with him (he has no receipt beyond entry in his sub-ledger). If not with local storekeeper, he makes out an indent on general stores which supplies the articles. At the end of the month the sheets come into the office, are totalled and valued, and the totals less those items supplied by general stores are entered in the foundry book for foundry charges, and charged for other shops to the general charges of the shops concerned. It is something like what is known in locomotive sheds as a "shed ticket." These board sheets should check with the storekeeper's sub-ledger, the indents on general stores for general charges, and bills for local purchases. They form a valuable record, and should be removed from the boards and carefully filed every month.

(3) *Monthly tickets.*—These are tickets hung beside each workman, showing the list of work orders and the number of days in the month. The foreman enters under each day the proportionate part of the workman's time allotted to each job in hand, and it is from this that the time-keepers fill up the time sheets. They are the initial record from which the time sheets are posted, and it should be seen that the proportionate parts of any one man's work for one day are not so entered as to exceed the total of his pay for the day. If this rule is always carefully observed, the labour charges on the tickets would invariably equal the labour charges shown on the time sheets, and the occasional petty differences which now sometimes occur will be avoided.

(4) *Monthly statement of fuel issued*—effects the same purpose for forges that (2) does for sundry stores. It is valued in the same manner and posted into the general charges register. It is in a form very slightly different from (2). It is suggested that form (2) be used for this purpose also.

(5) *Workshop orders.*—(*a*) This form is in three parts, on the obverse is entered—

Part I—requisition number, description, rate, amount.

Part II—requisition number, name of indenting officers, materials supplied, job completed, &c., number, description of work ordered, weight of iron issued, weight of outturn, difference or wastage.

Part III—requisition number, instructions to painter and packer; requisition number, instructions to despatcher.

On the reverse is entered—

Part I—*nil.*

Part II—number, description of materials, weight or contents.

Part III—number of despatch, number of cases, weight, station, how despatched, remarks, painter, packer.

(*b*) As soon as a requisition is received part I is filled in, the overseer then makes out an indent for stores and then part II obverse is filled in, except weight of outturn and difference, these last two columns being filled in when the job is completed. The reverse of part II is also filled in on completion of the job. Part III is torn off when the job is completed, and besides the information shown in the columns, the weight, &c., of outturn is shown thereon; mere weight entries being transcribed into part II. Part III serves as a gate-pass, and after despatch of articles is returned and filed with parts I and II in the cases to which they refer.

(*c*) The total weight of stores issued should agree with the amounts shown in the works notes, and if there are any differences they are supposed to be reconciled monthly and whenever a job is finished.

(*d*) The information in parts II and III entered in register of finished articles sent out (14) and in the workshop warrant.

(*e*) The objections taken to this form are first, the repetition of entries regarding requisition, weight of stores, and details; second, the system of filing in cases to which they refer.

(*f*) As regards the first objection, it is believed that a very considerable amount of clerical labour would be saved if the form of workshop order were altered to the following effect. (It may be noted that the rules for workshops, chapter XIII, vol. II, public works code, do not supply a standard form). It is therefore recommended that parts I and III obverse and reverse be cancelled, and the work order be in the form sketched below:—



*Obverse.*

PRESIDENCY PUBLIC WORKS WORKSHOPS — Work Order No. page, Work Book

1. Requisition No. — date of receipt
2. Indenting officer
3. Number of indent for materials
4. Job completed on — Workshop Warrant No.
5. Job despatched on

| No. | Description of work ordered. | Total weight of stores issued. | Weight of outturn. | Difference | Painting, square feet. | Packing, square feet. | Remarks. |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

*Reverse.*

| Description of stores issued. | Weight. | Instructions to packer. | Instructions to painter. | Remarks. |
|---|---|---|---|---|
| | | | | |

The procedure would be as follows. As soon as a requisition is received, the requisite entries will be made in the workshop order and columns 1, 2, 3 of the register of workshop orders (india form) filled in. When the indent for stores is made out and stores are received, the reverse of the form will be filled in and the total weight entered in the column for the purposes in the obverse. When the job is completed, the remaining columns can be filled in and the workshop despatch warrant and register of workshop orders completed. It is claimed that this modified form will save over 50 per cent. of the labour at present employed on this, and that it will do away with the necessity for the upkeep of the following books:—

(1) Index of orders received.
(2) Register of finished articles received and sent out.
(3) Bill book.
(4) Receipt book.

The few simple entries in the register of workshop orders (india form) being all that is required to trace an order. It will also do away with the gate-pass (part III of workshop order is used for this purpose), the workshop warrant being alone used as a gate-pass.* It is not necessary for all charges to be shown on the work order; this practically makes it a day book, whereas the present work-books are a day-book and register of work *combined*. The work orders should not be filed with the correspondence, but in guard files (see code, vol. II, paragraph 91 O, chapter XIII).

(6) *Time sheets*—are posted from the monthly tickets in the manner described in (3). One time sheet is kept each day for each shop. Foundry and general charges are not entered in time sheets, but abstracted on a slip of paper, the pricing out of the time sheets is done in the office. For machines and forges the time sheets are kept by "units"—*vide* paragraph 15 of this report. It not being possible to enter labour charges conveniently, the superintendent is of opinion that the unit system should be applied to all shops, and the arguments in favour of this are—

1*st*—that by the present system the share of time of each workman is not exactly but only approximately charged to jobs;

2*nd*—the immense saving of labour that would be caused thereby.

* If this is not possible, a simple ticket form of gate-pass should be used, and on return by gate-keeper, daily, checked with warrants and filed.

It is admitted at once that these contentions are true, that whether by actual labour or unit the distribution on time sheets must be more or less approximate, and there is no doubt that there will be an immense saving of labour. The objections to it on the other hand are (*a*) that the system is not one which has the approval of the code; (*b*) that the unit system must be based on a close and accurate watch of rates of labour, averages will have to be struck for each shop, the averages will have to be changed according as there is a rush of work or not during the month, and there must be a different unit for each shop, as it would in no sense be fair to take the average daily wages of all the workmen in the workshops and make one standard unit. It will also be necessary to use the units obtained from the averages of the *preceding* month for the current month's work. For these reasons it is considered undesirable that the Superintendent's proposals in this respect should be accepted; but for machines and forges the unit system may be allowed to stand, a careful watch and revision of rates being made monthly.

(7) Indents on stores are of two classes—

(*a*) Indents on workshop stores.
(*b*) Indents on general stores.

As regards (*a*) there are three forms in use, the first being an indent for articles required when a requisition is submitted. This is prepared in counterfoil; one goes to the office, the other is kept by the sub-overseer, and entries are made therefrom on the work order forms—*vide* (5) above. The second is a special form of indent for timber, showing dimensions, and the third is the board sheet already noted on.

As regards (*b*) the indent is in the following form :—

No.

P. W. WORKSHOPS.

INDENT ON P. W. STORES.

| Number of requisition. | Description and size. | Number of feet. | Remarks. |
|---|---|---|---|
| | | | |

P. W. WORKSHOPS.

No. Date 189

INDENT ON P. W. STORES.

| Number of requisition. | Description and size. | Quantity required. | Quantity issued. | Weight issued. | Weight issued on each job. | Rate. | Amount chargeable to each job. | Grand total weight to be carried into Store's Ledger. | Grand total cost to be carried into Store's Ledger. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

It is suggested that this form be discontinued and the form W-5 prescribed with standing order no. 270, in chapter XIII, volume II, public works department code of 1892, be adopted. The special form for timber will, however, still have to be used. It may be added that if the two offices be amalgamated, there will be no necessity for the special forms of indents on workshop stores.

(8) *Muster book.*—This is a muster roll in book form for all the labour employed within the stores and workshops divisions. It is totalled and priced every fifteen days and the labourer then paid. The muster rolls are neither signed nor marked by the payees. They are, however, all signed by the general superintendent. The labour chargeable to each shop, to stores, and to petty supervision is easily traceable. The total labour for the workshops should be checked whenever payment is made with the totals of the time sheets, and any differences reconciled. A note to this effect should be made on the muster book. Arrears of labour are carried into an unpaid wages register; but this register does not show progressive totals.

(9) *Transfer order and voucher.*—This is a special form corresponding to write-back order, public works department form 17. The code form no. 17 is more convenient and should be used for this purpose.

(10) *Requisition order.*—As already stated in the notes to the work order form above, the requisition order is posted into four separate books. There is no necessity for this if the register of workshops orders be introduced, and much clerical labour could be saved.

(11) *The Work books*—are a combined day book and register of works for jobs. They are defective in this respect, that they make no reference to estimates, and rates are not struck. This objection of want of estimate and watch over rates has already been pointed out. The work books have not been kept with sufficient care and attention. Instances of this are given in items 3 to 6 of appendix B to this report.



(12) *Stock sub-ledger.*—This record has already been noted on above—*vide* paragraph 29 of this report. If the stores and workshops were amalgamated, it would not be required.

(13) *Index of orders received*—is practically a ledger book of orders. It is not necessary if the register of workshops orders be kept up. This remark applies also to the following accounts noted in paragraph 13 (*d*) :—

(14) Register of finished articles and intimations of despatch of finished articles.
(18) Bill book.
(19) Receipt book.

36. The remaining records noted in paragraph 13 (*d*) call for no special remark, except that instead of the local form of workshop receipts the standard form should be used.

37. *Miscellaneous accounts.*—These accounts call for no special remark; they are the usual books required to be kept up. The service books of the following men require attention :—

(1) Mr. Trivengada Moodelliar, draftsman; Mr. U. K. Moodelliar, storekeeper; Mr. M. R. Moodelliar, cashier; entries relating to last increments require signature of superintendent;
(2) Ponnambalam, attender—requires re-attestation;
(3) Sunmungam, office boy—privilege leave, 2nd August to 16th september, not entered;
(4) Mr. Manickum Pillay—in making entries regarding last increment, the column date of termination of appointment has not been filled in;
(5) Rama Rao, peon, — service book not forthcoming.

38. *Reduction of office establishment in public works workshops.*—Excluding the divisional accountant, the office establishment of the workshops stands as follows :—

| | Per mensem. | Value of appointment per mensem. RS. |
|---|---|---|
| 1 Clerk storekeeper ... ... ... ... ... | 60—4—80 | 75·0 |
| 1 Draftsman ... ... ... ... ... | 50—4—70 | 65·0 |
| 1 Cashier ... ... ... ... ... ... | 50—2—60 | 57 5 |
| 1 Clerk ... ... ... ... ... ... | 40—2—50 | 47·5 |
| 1 ,, ... ... ... ... ... ... | 20—2—30 | 27·5 |
| 4 Clerks, each ... ... ... ... ... | 15—1—20 | 75·0 |
| 1 Clerk ... ... ... ... ... ... | 10—1—15 | 13·75 |
| 2 Attenders, each ... ... ... ... ... | 10—0—0 | 20 0 |
| | | 381·25 |

or an annual cost of Rs. 4,575.* It is suggested that reduction of establishment should take the following form :—

*One store-keeper, value of appointment Rs. 75 per mensem.*—The necessity for this appointment is not apparent. The total value of materials in hand or stores which this man looks after is Rs. 21,000 in round numbers. Of this, nearly Rs. 3,000 represents manufactured material which should be got rid of and Rs. 15,000 timber (of which he keeps no accounts). He is assisted by two attenders at Rs. 10 each who practically do all the work. All the account work except the sub-ledger is done in the office. He is now absent on leave and his absence has not been missed.

*One cashier, Rs. 57·5 per mensem.*—The duties of this man are to keep the cash book, check bills, write out the miscellaneous advance schedule, copy letters and disburse pay to workpeople. He has deposited a security of Rs. 300. The writing up of cash book averaging only three pages of entries per mensem, the checking of bills and the preparation of the miscellaneous advance account (which will be reduced to a very few items if the suggestion made in paragraph 32 be adopted) is work that could well be done by the other clerks, and the payments to labour (twice a month) could be done by the senior subordinate. There are no large cash balances kept.

*One clerk, Rs. 18·75.*—At the present moment there is a clerk, IV class, 1st grade, who has absolutely nothing to do. He has been temporarily lent to the stores division.

39. It is considered that, with the reduction of work proposed in preceding paragraphs and a little re-arrangement of duties, the proposals in the previous paragraph may be carried out without any inconvenience or loss to government. It may be added that the superintendent concurs entirely in this view. The total reduction proposed, taking as before the value of the appointments, amounts to—

| | Value per mensem. RS. |
|---|---|
| 1 appointment ... ... ... ... ... ... ... | 75 |
| 1 do. ... ... ... ... ... ... ... | 57·5 |
| 1 do. ... ... ... ... ... ... ... | 18·75 |
| Total ... | 151·25 |

* Taking the value of the appointment.

Rupees 151·25 per mensem or Rs. 1,815 per annum. The superintendent is also of opinion that the two attenders are not necessary; but unless another clerk is appointed, it is not quite clear how they can be dispensed with. If, however, they are got rid of, the total saving will amount to Rs. 2,055. The reduction recommended is, however, the figure given above, viz., Rs. 1,815.

C.—SYSTEM OF ACCOUNTS IN FORCE IN THE PUBLIC WORKS STORES WITH SUGGESTIONS FOR SIMPLIFICATION OF WORK AND REDUCTION OF ESTABLISHMENT.

40. The accounts and records maintained are—

(1) *For cash and adjustments.*—The usual accounts of an executive division.
(2) *For stock.*—Stock ledger, stock sub-ledger, stock abstract book.
(3) *Tools and plant.*—Sub-ledger, book of repairable and unserviceable tools and plant.
(4) *General.*—Bill book, register of london invoices, receipt book, despatch book, requisition book.
(5) *Miscellaneous.*—The records noted in paragraph 13 (*e*) of this report.

41. *Accounts of cash.*—These are in order; but considerable reduction in work could be effected.

(*a*) by *not* keeping copies of vouchers sent to audit;
(*b*) by *not* keeping copies of schedule dockets;
(*c*) by altering the system of filing vouchers—see paragraph 33 (4);
(*d*) by *not* keeping copies of the treasury balance certificate—see paragraph 33 (3).

The cash book is not neat, and some of the entries are not as clear as they might be. The book averages a little over three pages per mensem.

Attention is invited to the points noted in items 1 to 7 of appendix C to this report.

42. *Accounts of stock*—(*a*) *stock abstract book.*—This is posted from—

(1) Bills
(2) Invoices of stores received
(3) Transfer advices. } Receipts.
(4) Adjustment book for part II
(5) Indents for part III } Issues.

Owing to the absence of day books or forms 10 and 11, the issues are entered in the adjustment book and thence into the stock abstract book, part II. Before posting part III, details are posted into a rough manuscript book. The checking of this book is therefore a matter of some difficulty. Theoretically there should be little difficulty in posting the stock abstract book directly from bills, invoices, &c., but in practice this has been found to be unworkable not only here but elsewhere. It was in consideration of this question that the recognized intermediary forms 10 and 11 were prescribed in the standard forms of the public works department, and it is strongly recommended that they be introduced. The effect of this will be no increase of work, but rather a reduction and it will bring in an account link which is now wanting to check and test the accuracy of this record. By bringing in the use of these forms—

(i) the manuscript abstract for part III will be rendered unnecessary;
(ii) the postings into the adjustment book will not be required;
(iii) it will, in all probability, remove the necessity for a subsidiary adjustment book, which is now kept up (owing to want of space in the regular form).

Taken on the whole, there will be a slight reduction of clerical labour, and a considerable gain in method and system.

(*b*) *Ledgers.*—Rates are not entered in the ledgers against receipts, nor does it appear that issue rates are revised. There has been no half-yearly adjustment of rates made for the past three years. The method of adjusting rates is freely explained in the notes to public works department form 42-A and the procedure indicated therein should be followed.

When articles are grouped together, an average rate should be taken for issues. The ledger is also in arrears, as stores received during september 1893 and subsequently were posted therein at the time of inspection, and when posting issues for december (*vide* folio 49) balances after each issue have not been brought forward. The ledger appears to be posted as regards english invoices not directly from the register of english invoices, but from a rough invoice book which will be dealt with lower down. Items 8, 9 and 10 of appendix C to this report specify examples of diserepancies noted in the ledgers—

(*c*) *Sub-ledgers.*—These are kept by the storekeeper and posted from the receipt book (described below) and vendors' bills; the record of individual items of stock grouped in the ledgers as well as those articles which are kept by themselves in the ledgers is detailed herein. This seems unnecessary, only those articles which are grouped need be shown in the sub-ledgers.



(*d*) *Agreement of balances.*—No monthly agreement between the ledgers, sub-ledger and stock abstract book is effected This is a very necessary procedure, and steps should be taken to have a reconciliation statement made out monthly.

(*e*) A list of unserviceable stores has been prepared and is about to be submitted to the superintending engineer. No remarks are therefore necessary on this point.

(*f*) It may be remarked here that there is a system obtaining of having large boards in the office in which the details of balances of important sub-heads of stores are entered. These details are in the ledger, but the superintendent states he requires them before him in this form. They necessitate a lot of re-entry from ledgers which show balances and it is considered might well be done away with.

43. *General accounts* (*a*) *register of english invoices.*—This is posted from the receipt book and from the packing account as regards weights. Before, however, this is posted, a rough register is prepared having columns to distribute landing charges, &c., by weight. It may be noted that this apportionment is still made apparently against each item of an english invoice, and not on the value or in special instances on the total weight. When the weight of an article is not obtainable from the packing account, it is specially weighed. The totals of invoices are recorded in the register in lump.

(*b*) *Bill book.*—This is a record in which all charges against outsiders* are entered. It contains columns as follows:—

| | |
|---|---|
| Number of bill. | Chargeable to { Public department. Private. |
| Date of bill. | |
| Date of requisition. | Total. |
| On whom. | How adjusted. { Book. Cash. |
| Items-full detail. | |
| | Remarks. |

The bills are made out from the ledger and a printed list (which, however, is old and the value of which is doubtful). The record is, however, a useful one and might be maintained—see however clause (*d*) of this paragraph.

(*c*) *Receipt book.*—This record is in the following columns:—

Receipt book of all articles received in public works stores.

| Date of receipt. | From whom. | Authority. | Head of service. | Articles. | Number of quantity. | Weight. | Value. | Cooly and cart-hire. | Railway charges. | Landing charges. | Freight. | How disposed of. | Date of despatch. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |

This is practically a day book, and the information recorded herein together with that in the despatch book includes the information which was hitherto recorded in the register of english stores. All receipts find their place here. In it is copied the details of all london invoices, and the charges thereon are transcribed thence into the register of english invoices. It will be observed that weight entries are made here, in the packing account, and in the register of english invoices. If the book is to be kept up, english invoice entries should not find a place therein, as they are already entered in the register.

(*d*) *Despatch book*—

| Serial No. | Date of despatch. | No. and date of indent. | Head of service. | Full or part compliance. | Articles. | Number or quantity. | Value. | Number of packages. | To whom. | Station. | Weight. | Number of receipt. | Number and date of railway receipt. | Packing charges. | Cooly and cart-hire. | Railway charges. | Shipping charges. | Freight. | When adjusted. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | |

* Including departments other than public works department.

Generally the remarks in connection with the receipt book apply to this; but it is apparent that as all entries are made herein, if this form is kept up, the bill book is not necessary and there is of course reduplication of work in that items of despatch are entered as issues in the ledgers and also entered here.

(*e*) It would appear, both in regard to the receipt and despatch book, that they owed their being in the present shape to a misunderstanding of the instructions issued in regard to the abolition of day books. It was never intended, when the day books were abolished, that other forms containing entries of equal detail should be substituted in their place, and it is strongly urged that the system of direct postings advocated by the examiner and approved by government be given a fair trial.

(*f*) It seems unnecessary to have a receipt book at all in the present form for english stores for other divisions, the register of english stores as per paragraph 21 of the examiner's note printed with g.o., no. 1224 W., dated 13th April 1892, should be put in hand for other stores. No register is required, especially if forms 10 and 11 as suggested in paragraph 42 (*a*) be introduced. Similarly for items of despatch, a simple form showing indent number and date of receipt, date of supply and reference to supply warrant, and reference to acknowledgment would be sufficient. Care should be taken to avoid reduplication of entries by—

(i) *not* entering in this despatch register items entered in the register of english stores;

(ii) *not* entering in this despatch register items issued to outsiders, the record of which is in the bill books. This will result in the items of despatch being classed or entered in these books, one book with three parts may be used for the purpose, and despatches could be easily traced. Further information regarding them, if necessary, could always be found in the books and records, but it is obviously incorrect to keep a practical copy of information which is always on record in an office.

44. *Tools and plant.*—These accounts call for no special remark. The superintendent is however of opinion that values should be assigned to them in the sub-ledgers in case of issues to Imperial services or other departments. There is, however, a price list of tools and plant and if this is kept revised there seems no necessity for the procedure suggested by the superintendent being adopted.

45. *Miscellaneous accounts* call for no special remarks except in the following instances:—

(1) There are sometimes delays in the despatch of advices of transfer. These have been repeatedly brought to notice in audit.

(2) A considerable reduction of work could be effected in the correspondence branch by reducing the number of entries in the registers. The numbers and dates of despatches sent out which are entered in the despatch register should not be repeated in the correspondence register and so on. In fact in all these points it should be the care of the head clerk and divisional accountant to bring to the notice of the superintendent any redundant procedure. It is only by a close and careful watch over this that the overgrowth of superfluous entries and forms which are in reality not required can be kept down.

(3) There is one government security for Rs. 500 which is duly entered in the register of security deposits. The register is not signed, nor has it been checked with the annual gazette notification issued by the examiner. The amount of Rs. 500 is shown as having been originally received with a contract agreement for the year 1886–87. A remark (not signed by the general superintendent) is entered as follows. "Contract renewed on the same security for 1887–88, 1888–90, 1890–91." The agreement is not forthcoming and in connection with this it may be noted that those agreements seen in the workshops were not in the specified form; they were in manuscript, and the clause about the right of the superintendent to close the contract at any time was not sufficiently clearly put except in one agreement.

(4) The service books are not in order, and early steps should be taken to have a register of service books properly written up, and the errors and omissions noted in the following sub-paragraphs rectified—

(i) *Service book of Rangasawmy, messenger.*—With the exception of two entries of privilege leave, none of the entries made since 1st May 1885 have been signed either by the messenger or by the general superintendent.

(ii) *Service book of Naraina Mudali, lascar.*—The only entry made in the book are those relating to his first appointment. The substantive appointment is entered as "cooly." The entries are not signed by any one. Privilege leave for 1 month and 26 days from 3rd May 1893 to 28th June 1893 has not been entered.

(iii) *Service book of Chinniah Pandaram, messenger.*—It is stated that this man is a messenger on Rs. 6–8–0 per mensem. His service book shows only an entry of his first appointment as lascar on Rs. 6 per mensem. Some entries of leave subsequently made in the book have not been signed by any one.

(iv) *Service book of Syed Hoossain, messenger on Rs. 6–8–0.*—The last entry of promotion has not been signed by the messenger.

(v) *Service book of messenger Moonoosawmy Mudali on Rs. 7 per mensem.*—The last entry has not been signed either by the messenger or by the general superintendent.



(vi) *Service book of Sabapathy, head messenger, on Rs. 8 per mensem.*—The last entry of promotion and all entries of leave have not been signed by any one.

(vii) *Service books of Varathan and Kuppan, lascars.*—None of the entries including those of the first appointment have been signed either by the lascar or the general superintendent.

(viii) *Service book of Daivasikhamani, lascar.*—Date of first appointment has not been entered.

(ix) *Service book of Arunachella Mudali, lascar.*—None of the entries made since 29th July 1889 have been signed.

(x) *Service books of P. Maduray, lascar, and of Wandiwash Varathan, lascar.*—The only entry made, viz., that of first appointment, dated 1st and 15th May 1890, respectively, has not been signed by the general superintendent.

(xi) *Service book of Arunagherry, lascar.*—The only entry made, viz., that of first appointment, dated 1st April 1890, has not been signed by the general superintendent.

(xii) *Service book of Tiruvengada Pillay, lascar.*—All entries of leave have not been signed by the general superintendent.

In some service books the entries as regards leave are made across the whole page, which is thus rendered practically useless for the other columns. Such entries should be made in the proper columns.

46. It would be as well here to summarise briefly those points noted by the examiner in his inspection, which resulted in the issue of g.o., no. 1224 W. of April 1892, which have not been acted upon.

Examiner's no. 787, E.E., dated 25th March 1892, to the general superintendent of stores:

*Item I.*—(i) Day books have been discontinued in day book form, but practically re-introduced in the receipt and despatch books.

(ii) Whilst priced ledgers have been opened for items of stock that can be grouped, average rates have not always been fixed.

*Item II.*—The sub-ledgers not only contain group items, but others as well, causing duplication of entries.

*Item III.*—Not attended to.

*Item IV.*—Has been included in the despatch register.

47. Paragraph 5 of examiner's office-note republished with the Government order referred to in paragraph 46 defers dealing with a suggestion made by the superintendent in regard to the watch over files, chisels, &c., which are chiefly issued to the workshops at a valuation. The superintendent proposed treating these articles in the same manner as stock issues are treated, and it is considered that his proposals may be allowed to stand. When, however, the superintendent states that he has no real check between the workshops and stores over such articles, it is believed that he did not bear in mind the monthly boards for sundry stores—paragraph 35 (*2*) of this report from which an efficient book-check of issues could be made if desired. This, however, is only a book-check, it being left to the experience of the superintendent to decide whether so many chisels or files are necessary for a certain number of jobs, and no book-check can effect this.

48. *Reduction of office establishment.*—Calculating the pay of members of the public works stores office establishment in the value of the appointments in the same manner as has been done in paragraph 38 of this report it will be found to be as follows:—

| | Monthly pay of appointment. | Monthly value of appointment. |
|---|---|---|
| | RS. | RS. |
| 1 clerk, 2nd class, 2nd grade (storekeeper) ... | 120—8—160 | 150 |
| 1 ,, 3rd ,, 2nd ,, (assistant storekeeper) | 60—4— 80 | 75 |
| 1 ,, 4th ,, 2nd ,, ... .. ... | 30—2— 40 | 37·5 |
| 1 ,, 4th ,, 3rd ,, ... ... ... | 20—2— 30 | 27 5 |
| | | 290·0 |

or Rs. 3,480 per annum.

There is besides a clerk T. Govindrajloo whose pay of Rs. 20 per mensem is charged irregularly to tools and plant. He keeps up the receipt and despatch books referred to in paragraphs 43 (*c*) (*d*) of this report.

So that the total annual cost, including this man, amounts to Rs. 3,720 per annum.

It is considered that the following establishment could be dispensed with:—

(*a*) One clerk, 2nd class, 2nd grade, Rs. 150 per mensem. This clerk performs the duties of chief storekeeper. They are as follows:—

(i) Passing home indents.

(ii) Attending port works, landing, shipping and despatching stores.

(iii) Keeps accounts of and superintends painting and packing.
(iv) Makes petty payments for workshops.

The work falling under (i) and (iii) is very little, and the actual painting and packing work is superintended by the chief storekeeper only nominally. The work in (iv) is absolutely unnecessary and should never have been done [paragraph 33 (9)]. Apart from this, it is of a very petty and trivial nature. The principal duties of this officer can therefore be defined as that falling under (ii). For this work it is considered that too much is being paid, the duties involved in it are not such as require the services of a highly-paid clerk.

(*b*) One clerk on Rs. 20 per mensem (now charged to tools and plant) who keeps up the receipt and despatch books. There is no question that this is a needless post.

49. These proposals involve an annual saving of Rs. 2,040. A little re-arrangement of duties would allocate the clerical work now done by the chief storekeeper and the reductions proposed in this note and in the important memoranda by the examiner reducing nearly 70 per cent. of the most difficult work in the stores office, would, if carried out, enable the staff to do their work without any undue pressure being put on them. It is proposed that the work of the chief storekeeper be done by the present assistant storekeeper, and that for office arrangements the accountant be regarded as the head of the office. At present there is no head of the office and much work is thrown on the general superintendent.

D.—PROPOSED AMALGAMATION OF THE PUBLIC WORKS WORKSHOPS AND STORES OFFICES.

50. Summarising the proposals in paragraphs 38 and 48, it will be found that keeping the two offices as they are separate, a total saving of Rs. 3,855 can be effected. There is, however, another proposal which has already been partly discussed, and that is to amalgamate the two offices, and in doing so it may be remarked that as regards the general superintendent the offices are practically one; that they are situated on the same spot; and that they work practically in the same room: the only objection to the amalgamation would appear to be that the issues of materials to the shop entered by the store accountant will no longer be acknowledged by the shop accountant. This, however, is an objection that can be met: the issues of material are made on indents with the preparation of which the accountant has no concern, and his issues to stores as per his books must tally with indents which are in all cases countersigned by the superintendent. No more effective check is, it is submitted, necessary. There would be no lengthy process required in making the two offices one; all that would be necessary would be to combine the cash accounts and the registers of correspondence, the workshop becoming a sub-division of the stores division. The immediate result would be—

(1) A saving in the upkeep of two separate series of cash accounts. The combined series would be based on a cash book having entries of about five pages per mensem.
(2) The submission of one instead of two sets of accounts to audit.
(3) The corresponding saving in regard to the workshops which would submit merely the accounts in the manner prescribed in standing order no. 270 to chapter XIII, vol. II of the public works department code.
(4) The reduction of work in the manner specified in this report.
(5) The reduction of one accountant's post and the saving consequent on that.
(6) A further reduction of establishment as specified below.
(7) General administrative convenience.

51. The scale of establishment proposed would be the same as that proposed for the two offices in paragraphs 38 and 48, embodying a total saving of Rs. 3,855 per annum: to this must be added the pay of one accountant, 7th grade, at Rs. 80 per mensem, and presidency allowance and house-rent at Rs. 25 per mensem, making a total of Rs. 105 per mensem or Rs. 1,260 per annum, or Rs. 5,115 in all. The conveyance allowance of Rs. 30 * per mensem now drawn by the clerk acting as chief storekeeper might also be reduced, and it may also be possible to reduce certain of the menial staff; for this purpose another Rs. 144 per annum might be added, making the total saving proposed Rs. 5,259, or Rs. 5,260 in round numbers. An accountant, 7th grade, has been chosen for the purpose of calculating the saving in accounts establishment because this is the ordinary pay of an accountant attached to a division, and an accountant of this rank is deemed sufficient for this charge.

52. It has not been considered necessary to go into each item of work that could be saved and detail it in comparison with the revised scales of establishment proposed. It is trusted that the results brought out in the paragraphs above, which were fully discussed with the superintendent, will, if read in conjunction with the other parts of the report, be considered as sufficient grounds to go on in regard to the proposals for reduction of expenditure.

MADRAS,
28th December 1893.

(Signed) S. K. LEVETT YEATS,
*Dy. Exr., Public Works Accounts, Madras.*

* It is proposed to reduce the conveyance allowance by Rs. 5 per mensem or Rs. 60 per annum—to dispense with one peon at Rs. 7 per mensem or Rs. 84 per annum making an annual saving of Rs. 144.



## APPENDIX A.

*Presidency public works workshops.*

## Balance of Materials on 1st July 1893.

| Number or quantity. | Description of articles. |
|---|---|
| 1 | Beam for 1,000 rupees scale. |
| * 15 | Locks, brass, unfinished, for Pillar Letter-box, without keys. |
| 5 | Punching instrument or stand, old. |
| 12 | Brass pans for scales to weigh ¼ to 10 tolas. |
| 1 | Tracing glass frame. |
| 1 | Angle iron boiler tube plate ring. |
| 16 | T-head, 2½″. |
| 2 | Screw rod, 2½″ 7′ long, 4′ 9″ screw. |
| 1 | ,, 2½″ 7′ ,, 4′ 6″ ,, |
| 1 | ,, 2½″ 6′ ,, 4′ 6″ ,, |
| 1 | Cast iron hex. nut with friction plates for 2½″ rod. |
| 1 | ,, capstan nuts, 2-armed with friction plates for 2½″ rod. |
| 13 | ,, ,, 2-armed. |
| 1 | ,, ,, 4-armed with friction plates for 2½″ rod. |
| 9 | ,, ,, 4-armed. |
| 8 | T-head, 2″ |
| 1 | Screw rod, 2″ 5½′ length, 4′ screw. |
| 3 | ,, 2″ 5′ length, 3′ 9″ screw. |
| 15 | T-head, 1½″ |
| 1 | Cast iron capstan nuts, 4-armed, 4½″ |
| 98 | Chains, iron, measuring, galvanized, 100′ |
| 1 | ,, ,, ,, 66′ |
| 50 | ,, ,, ,, 50′ |
| 746 | Arrows. |
| 13½ lb. | Knife edge, &c., belonging to Grainger's pan machine. |
| 12 | Cast iron top plates, 12″ × 4″ |
| 13 | ,, ,, 10″ × 4″ |
| 11 | ,, cover plates, 15″ × 11½″ |
| 7 | ,, holding down top plates, each 73 lb. |
| 7 | ,, ,, ,, ,, 15½″ × 9″ × ⅝″ |
| 23 | ,, flange nuts. |
| 3 | W. iron bolts, 6′ × 1⅝″ |
| 8 | ,, 4′ × 1⅝″ |
| 36 | ,, 3½′ × 1⅝″ |
| 15 | Iron angle bent, 4′ × 3″ × ½″ |
| 24 | ,, 3′ × 3″ × ½″ |
| 8 | ,, 2¾′ × 3″ × 3″ × ½″ |
| 4 | ,, 11′ × 3″ × 3″ × ½″ |
| 2 | ,, 10½′ × 3″ × 3″ × ½″ |
| 6 | ,, 8′ 2″ × 2″ × 2″ × ¼″ |
| 12 | Cast iron flange pipe, 9′ × 6″ |
| 2 | ,, socket pipe, 6′ × 6″ |
| 3 | ,, ,, 9′ × 3″ |
| 36 | ,, legs for record-racks. |
| * 28 | ,, brackets for G.P. scale. |
| * 48 | ,, lever for 2-maund cup scale. |
| 6 | Iron clamps, large. |
| 45 | ,, small. |
| 1 | Beam for 5 cwt. iron scale. |
| 4 sets. | Steel punches, ¼″ figure with crown, from 1 to 9 and 0. |
| 2 ,, | ,, ½″ ,, ,, ,, ,, |
| 2 | Spanners for shutters. |

| Number or quantity. | Description of articles. |
|---|---|
| 6 | Sale hammers. |
| 1 | Steel calliper, large. |
| 1 | Steel knife edge for G.P. Machine. |
| 1 | " " for 2 maund cup scale. |
| 1 | Head pipe. |
| 4 | Iron guides for shutter. |
| 1 | Flat bar. |
| 1 | C.I. weight, 28 lb. |
| 1 | " 14 lb. |
| 2 | " 4 lb. |
| 4 | " 2 lb. |
| 2 | " 1 lb. |
| 6 | " ¼ lb. |
| 1 | " 56 lb., galvanized. |
| 1 | " 14 lb. " |
| 1 | " 7 lb. " |
| * 125 | " for 1 maund G.P. Machine. |
| * 30 | Weights, adjusting, for G.P. Machine. |
| * 50 | C. Iron weights, balance, for 2 maund cup scale. |
| * 179 lb. | " " " for 1 maund unwrought. |
| * 9 | Country rain-gauges without glass measures. |
| 1 or 31 lb. | W.I. guide bar. |
| 644 lb. | Tie bars. |
| 2 | Brass weight, 20 tolas. |
| 3 | " 40 " |
| 3 | " 50 " |
| 1 Pair | Dumb bells. |
| 1 | Brass weight, 100 tolas. |
| 30 | C. Iron keepers. |
| 17 | C. I. wheels for dix signal. |
| 2 | Anchor plates, 16″×14″×½″ |
| 2 | C. I. stands for Lithographic press. |
| 7 | Friction plates. |
| 2 | Teakwood frames with fixed venetians in gables, 7′ 6″×1′ 3″ |
| 25 sets | Set squares, 45° and 60° |
| 6 or 87 lb. | Iron pieces for friction plates, 14″×5″×⅝″ |
| 1 | C.I. hex. nut for 1½″ screw. |
| 10 | " for S design. |
| 2 sets | C.I. caustic moulds. |
| 1 set | " |
| 24 | C.I. legs, small." for brass weight. |
| 8 | C.I. plates for corn mill. |
| 15 | C.I. rammers, each 14 lb. |
| 3 | C.I. capstan nuts 3 anna. |
| 1 | Iron bolt, 1¼″×⅜″ |
| 6 | German silver scales, small. |
| 26 | W.I. bolt, with nuts, 12″×⅜″ |
| 24 or 2 lb. | Iron rivets, ½″ |
| 14 | Iron bolts, 6″×½″ |
| 2 | Eye bolts, for swing shutters. |
| 8 | Hasps. |
| 158 lb. | Trinions. |
| 39 or 63 lb. | Casting flat brass pieces. |
| 4 | C.I. top plates, 15″×3½″×½″ |
| 1 | " " 11½″×3½″×½″ |
| 1 | " " 10½″×2½″×½″ |
| 1 | C.I. weight, 56 lb. |
| 1 | " 28 lb. |
| 1 | " 7. |
| 1 | " 4. |
| 4 | Brass weight, 25 tolas. |



APPENDIX B.

## Notes of Test Audit.

*Division*—Presidency public works workshops.

*Month of accounts test-audited*—September 1893.

*Item* 1—*Schedule docket no.* 5, *cash-book voucher no.* 20, *dated* 2*nd September* 1893, *for Rs.* 4-12-0 *on account of* 2 *squares of matting office room.*—The amount should have been charged to "Office contingencies" (code VI-9) and not against the estimate for repairs to the office building.

*Item* 2—*Schedule docket no.* 6, *cash-book voucher no.* 34 *N.M.R.. for Rs.* 37.—Corrections in the total amount of the roll and in the "order to pay" thereon have not been initialled.

*Item* 3.—The undermentioned charges recorded in work books are not traceable into the initial accounts :—

| Reference to work book and folio. | Registration number. | Description of charge. | Amount. Rs. A. P. | Credited to | Remarks. |
|---|---|---|---|---|---|
| 1893-94. | | | | | |
| B. 1, F. 1 .. | 3691 | Extra charge .. | 0 1 0 | General charges .. | To bring up the amount of bill made on public works stores division to a round sum of Rs. 5-8-0. |
| B. 3, F. 14 .. | 14 | Scrap iron .. | 15 2 6 | "Materials in hand" .. | Sales of scrap should have been credited to revenue. |
| B. 3, F. 78 .. | 72 | Foreman and centage thereon at 50 per cent. | 6 0 0 | "General charges" .. | The estimated cost was Rs. 15. The actuals only Rs. 1-8-0. |
| | | | 9 1 3 | "Materials in hand" .. | .... |
| B. 3, F. 119 .. | 100 | Red cedar .. .. | 0 4 0 | Do. do. .. .. | .... |
| B. 3, F. 122 .. | 103 | Iron sheet .. .. | 13 8 0 | General charges .. | The full amount of the pay of Andiappa Charry is already charged to general hospital and medical store works. |
| B. 3, F. 174 .. | 30 | Andiappa Charry .. | | | |
| | | | 2 0 0 | Materials in hand .. | .... |
| B. 4, F. 89 .. | 207 | Timber .. .. | 2 0 0 | Do. do. .. | .... |
| B. 4, F. 90 .. | 208 | Do. .. .. | 13 1 11 | General charges .. | To bring up the amount to Rs. 20, excluding 25 per cent. for indirect charges. |
| B. 4, F. 86 .. | 204 | Labour for syrang and centage thereon at 50 per cent. | | | |
| | | | 2 8 0 | "Materials in hand" .. | .... |
| B. 4, F. 100 .. | 217 | 2 Pins and 1 lens .. | 8 0 0 | "General charges" .. | .... |
| B. 4, F. 162 .. | 277 | Outside maistry .. | | | |

*Item* 4—*Book no.* 1 *of* 1893-94, *folio no.* 5, *job no.* 690 *of* 1891-92—*Teakwood doors and windows for taluk cutcherries at Salem.*—The charges to end of March 1893 amounted to —

| | Rs. | A. | P. |
|---|---|---|---|
| Value of timber issued from time to time between February 1892 and February 1893 ... ... ... ... ... | 2,578 | 15 | 2 |
| Other charges ... ... ... ... ... | 6,766 | 9 | 7 |
| Total ... | 9,345 | 8 | 9 |

of which Rs. 181-11-1 was adjusted by debit to Salem division in March 1892, and the balance Rs 9,163-13-8 remained to be adjusted in March 1893; but for want of funds in the Salem division to meet the debit for the full amount, only Rs. 8,000 was charged to Salem division and the balance Rs. 1,163-13-8 transferred to timber account (materials in hand) in March 1893 and re-debited to the job in April 1893 as outlay of 1893-94. Subsequently, before closing the supplemental accounts, the executive engineer, Salem division, informed that he was prepared to accept a further debit of Rs. 2,600. The amount of Rs. 1,163-13-8 written back, together with an amount of Rs. 1,436-2-4 to make up the sum of Rs. 2,600, has been debited to the job in the supplemental accounts. The debit of Rs. 1,436-2-4 is not supported by an entry in the initial accounts and is described in the work books to be "value of timber specially purchased." In the accounts for 1893-94, the debit is withdrawn.

*Item* 5—*Book no. I, folio* 33 *of* 1893-94, *job no.* 356—*Wrought iron gratings, &c., for Salem division.*—A credit balance of Rs. 11-10-0, which remained to be adjusted against the division, has been credited to general charges account.

*Item* 6—*Book II, folio* 74, *registration no.* 698 *of* 1892-93—340 *trinions and dies for South Indian Railway.*—The total charges on this job amounted to Rs. 913-4-0, which was adjusted

by transfer debit to "state railways," but on the cost being objected to by the South Indian Railway, a revised bill has been made out for Rs. 873, and the difference Rs. 40–4–0 debited to general charges.

*Item* 7.—In tracing the payments for stores purchased as per vouchers brought from the examiner's office into the initial accounts explained above, the omissions noted below have been observed—

(*a*) C.O.V. no. 53 of september 1893 (cash book no. 2), 423 cubic feet $7\frac{5}{12}$ inches of red cedar logs; value Rs. 582–7–7. The quantity is not traceable from the ledger.

(*b*) C.O.V. no. 66 of september 1893 (cash book no. 108), 53 feet of catgut $\frac{1}{4}$ inch, and one pair of iron hooks and eye, value Rs. 9–7–4, are neither brought on the ledgers nor shown as issues to any job or general charges. The payment is, however, debited to the materials in hand account.

*Item* 8.—The undermentioned items shown as issues (on the complied with indents) from stock have not been entered in the workshop numerical ledger.

(*a*) *Indent no.* 540 *O.S., dated* 18*th September* 1893, *job no.* 295.—Anchor plates, $12'' \times 12''$ $\times 1\frac{1}{4}''$, 2 pieces, value Rs. 1–7–9.

(*b*) *Indent no.* 50 *O.S., dated* 2*nd September* 1893, *job no.* 261—

| | | |
|---|---|---|
| 2 old heel posts | ... | lb. |
| 1 wicket gate | ... | 311 |
| 1 flat bar | ... | 86 |
| | ... | 23 |

} Valued by general superintendent @ Rs. 100.

It has been explained that these articles have not been borne on the books. Their value is, however, credited to "materials in hand" account.

*Item* 9—*Fifty-five cubic feet* $1\frac{1}{12}$ *inches of teak timber returned from job no.*—"*New extension of punkahs at general hospital* (*book II, folio* 56).—The value is not adjusted, as it is stated it was considered unnecessary by the general superintendent. The quantity has, however, been received into store.

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## APPENDIX C.

## Notes of Test Audit.

*Division*—Public works stores.

*Month of accounts test-audited*—September 1893.

*Item* 1—*Cash book.*—Three postage stamps (2 of four annas each and 1 of one anna) are remaining as part of cash balance for more than two years and a half. Their colour is fading. They should be got rid of.

*Item* 2.—When a payment chargeable to different heads of account is made by a cheque, the amounts chargeable to each account are entered in the treasury column instead of the amount of the cheque. This should be avoided in future.

*Item* 3.—The undermentioned vouchers for cash payments (over Rs. 10) made during september 1893, on account of other divisions and debited direct to "transfers—divisional" have not been sent with the advices of transfer debit. Such vouchers are kept in a file labelled "vouchers in support of payments on account of other divisions."

| Cash Book No. | Description of voucher. | Amount. RS. A. P. |
|---|---|---|
| 15 | Supplier's bill ... ... ... ... ... ... | 27 0 8 |
| 24 | Do. ... ... ... ... ... ... | 232 13 0 |
| 41 | Do. ... ... ... ... ... ... | 60 4 8 |
| 50 | Freight bill of B.I.S.N.Co. ... ... ... ... ... | 49 15 11 |
| 52 | Railway fare ... ... ... ... ... ... | 11 6 0 |



*Item* 4.—The duplicates of the undermentioned freight bills of B.I.S.N.Co. have been receipted by Messrs. Binny and Co., but not stamped.

Cash book No. 25, dated 11th september 1893, for Rs. 57–8–0.
" " 50 " 29th " " for " 49–15–11.

Duplicates of vouchers should not be kept—see para. 41 (*a*), general report.

*Item* 5.—Some difficulty has been felt in tracing the payments for stores and freight on account of "transfers—public works department—divisional" into the advices of transfer debit, for want of sufficient particulars * in cash book. They had to be traced through the office copies of vouchers, and a book called the "despatch book" described at para. 43 (*d*) of report.

* The following are examples of entries in cash book, debited to transfers—divisional:—

| | RS. | A. | P. |
|---|---|---|---|
| Railway fare as per credit note, no. 122, dated 30th August 1893 ... ... | 2 | 4 | 0 |
| Messrs. Massey and Co. for gauge glasses supplied ... ... ... ... | 27 | 0 | 8 |

*Item* 6—*Delay in advising a transfer payment on account of Burma State Railway*—

| | |
|---|---|
| Date of payment ... ... ... ... | 11th sept. 1893. |
| " of advice ... ... ... ... | 26th " " |
| " of despatch of advice ... ... ... | 2nd oct. " |

*Item* 7—*Cash abstract book.*—A group total should be entered under "Final heads—Civil Works—Provincial."

*Item* 8—*Ledgers.*—In tracing the payments for stores as per vouchers brought from the examiner's office into the store accounts, the following discrepancies, &c., have been noticed:—

(i) *C.O.V. no.* 29.—Out of 4 W.I. handles for crab winches, only two are shown as receipts on the 7th september 1893. It has been explained that 4 is a clerical error for 2.

(ii) *C.O.V. no.* 40.—Value of manila rope adjusted in september 1893. The article has been actually received into store in october 1893 and shown in the ledger as a receipt of october 1893, so that the book balance of stock under the sub-head "mis." at end of september 1893, as shown by the stock account current, will not agree with the total of the ledger balances on that date.

(iii) *C.O.V. no.* 30.—The stores included in this voucher, the value of which is debited to stock in the accounts for september 1883, have been brought on the ledgers as follows:—

(*a*) 15 lb. cast steel, round, $\frac{7}{8}''$. Rs 3–10–9 is posted twice into the ledgers once on 31st july 1893, and again in August 1893. The actual date of receipt into stores as per "receipt book" is 28th July 1893.

| | RS. | A. | P. |
|---|---|---|---|
| (*b*) $6\frac{1}{4}$ lb. copper sheet, $\frac{1}{8}''$ ... ... ... ... ... ... | 2 | 5 | 0 |
| 5 lb. screws, coach, $4'' \times \frac{3}{8}''$ ... ... ... ... ... ... | 0 | 9 | 2 |
| $3\frac{1}{2}$ lb. rivets, iron, $2\frac{1}{2}'' \times \frac{1}{3}''$ } ... ... ... ... | 1 | 2 | 3 |
| 8 lb. " " $2'' \times \frac{5}{8}''$ } | | | |

These are posted into the ledgers in August 1893.

(*c*) Iron, round, flat, &c., not traceable into the ledgers.

(*d*) Painters, stores, not traceable into the ledgers.

(*e*) The remaining articles have been brought on the ledgers in september 1893.

The quantities referred to in c.o.v. no. 30 are, however, clearly traceable into the "receipt book" on different dates in July, August and september 1893 and into the sub-ledger.

The irregularities noticed above will result in a disagreement of balances between the stock abstract book and the priced ledgers, and between the latter and sub-ledgers.

*Item* 9—*folio* 5.—Iron, flat, square and round, of sizes. An error has been made on the 6th september 1893, in striking the balance, and is still continued without detection:—

| | Tons. | cwt. | lb. |
|---|---|---|---|
| Previous balance ... ... ... ... ... ... | 275 | 2 | 100 |
| Issue ... ... ... ... ... ... ... | 0 | 6 | $39\frac{1}{2}$ |
| Balance, as should be ... | 274 | 16 | $60\frac{1}{2}$ |
| Balance, as entered ... | 275 | 4 | $60\frac{1}{2}$ |
| Difference (excess) ... | 0 | 8 | 0 |

*Item* 10.—The accompanying statement of balances on 30th september 1893 under "metal," shows the disagreement between—

(i) Priced ledger and sub-ledger as to quantities.

(ii) Priced ledger and stock abstract book as to value.

*Statement of balances under "Metal" on 30th september 1893.*

| Reference to folio. | Description of article. | Quantity as shown by priced ledger. | Quantity as shown by sub-ledger. | Balance of values as shown by priced ledger. | Issue rate. |
|---|---|---|---|---|---|
| | | TONS. CWT. LB. | TONS. CWT. LB. | RS. A. P. | RS. A. P. |
| 5 | Iron, flat, square and round, of sizes | 286 7 49½ | 287 15 78¾ | 33,173 1 3 | 5 12 6 per cwt. |
| 13 | Iron, flat, square and Swedish, of sizes | 8 4 26 | 8 6 71 | 1,675 8 3 | 10 3 8 ,, |
| 15 | Iron sheet, of sizes | 11 12 5¼ | 11 16 13¼ | 1,590 13 0 | 6 9 10 ,, |
| 19 | Iron plate, of sizes | 71 1 2 | 69 12 100 | 8,860 0 2 | 6 4 9 ,, |
| 21 | Iron plate, Lowmoor, of sizes | 0 11 51 | 0 11 51 | 252 0 3 | 22 0 0 ,, |
| 23 | Iron angle, T chl. and triangular, of sizes | 130 3 10 | 130 12 98 | 15,487 1 10 | 5 15 3 ,, |
| 24 | Iron, angle, scrap | 0 1 10 | .. | 3 2 10 | 2 14 8 ,, |
| 25 | Iron, pig, English | 2 8 77 | 2 8 77 | 122 3 7 | 50 3 4 per ton. |
| 28 | Steel, shear flat, square and round, of sizes | 1 11 108¼ | 1 11 71¼ | 850 12 1 | 26 10 0 per cwt. |
| 31 | Steel, cast, flat, square and round, of sizes | 24 18 67¼ | 24 17 83¾ | 13,631 2 11 | 27 6 10 ,, |
| 34 | Steel, cast, octagon, for miner's drills | 9 10 63¾ | 9 12 83 | 1,574 4 6 | 20 4 8 ,, |
| 36 | Steel, cast, sheet, of sizes | 0 2 50 | 0 2 41¾ | 51 15 10 | 20 4 8 ,, |
| 38 | Steel, blister, square and flat, of sizes | 6 12 39¼ | 6 12 39¼ | 3,705 13 0 | 28 0 0 ,, |
| 40 | Steel, silver, round, square and flat, of sizes | 0 5 100 | 0 6 5 | 154 13 10 | 43 4 0 ,, |
| 42 | Steel, mild, plate, of sizes | 0 3 68½ | .. | 21 4 1 | 5 14 2 ,, |
| C.43 | Steel, wire, galvanized, of sizes. | 0 1 8 3/16 | 0 1 9 | 18 13 11 | 26 13 4 ,, |
| 45 | Steel, wire, mild | 1 12 67 3/16 | 1 12 68½ | 229 6 7 | 6 14 8 ,, |
| C.46 | Steel, wire rope, galvanized flexible | 0 1 59 | 0 1 59 | 30 11 1 | 20 6 8 ,, |
| 47 | Steel, ship plates, of sizes | 3 6 35 | 3 9 109¾ | 466 12 9 | 7 0 8 ,, |
| 48 | Wire, iron, of sizes | 0 0 30 3/16 | 0 0 31 | 3 6 3 | 12 6 0 ,, |
| 49 | Wire, iron, split, of sizes | 0 5 12 18/16 | 0 5 12 11/16 | 68 4 4 | 13 5 8 ,, |
| 50 | Wire, steel, of sizes, and gauges of Nos. | 0 2 51 45/128 | 0 2 52 17/32 | 68 13 2 | 28 0 0 ,, |
| 51 | Wire, iron, galvanized, No. 12, gauge | 0 7 12¼ | 0 7 12¼ | — 0 7 6 | 14 0 0 ,, |
| 53 | Brass rod, of sizes | 2 10 58 4/16 | 2 10 32¼ | 1,928 5 2 | 38 2 6 ,, |
| 57 | Brass sheet, of sizes | 1 5 17 19/64 | 1 5 17 43/64 | 1,213 12 4 | 46 5 2 ,, |
| 62 | Brass wire, of sizes, and gauges, of Nos. | 0 0 71 1/64 | 0 0 71 31/32 | 25 13 6 | 54 2 6 ,, |
| 65 | Platinum wire ft. | 0 0 11 5/16 | 0 0 11 5/16 | 2 3 6 | 0 3 0 per ft. |
| 66 | Copper sheet, of sizes | 7 6 38 10/16 | 6 14 52 6/16 | 7,034 6 10 | 41 10 10 per cwt. |
| 68 | Copper rod, of sizes (square rod included) | 6 19 81 6/16 | 6 19 81 6/16 | 6,149 1 0 | 48 4 3 ,, |
| 70 | Copper wire coated with silk | 0 0 30 3/64 | 0 0 30 3/64 | .. | .... |
| 72 | Copper wire | 0 4 102 | 0 5 90 | 280 11 7 | 57 2 8 per cwt. |
| S.S. 73 | Copper gauge R.ft. | 0 0 6 | 0 0 6 | 12 0 6 | 2 0 1 per R. ft. |
| 74 | Zinc sheet | 0 4 107 | 0 4 107 | 115 6 0 | 23 4 7 per cwt. |
| S.S. 75 | Zinc sheet, perforated, sq. ft. | 0 0 19½ | 0 0 19½ | 2 11 10 | 0 2 3 per sq. ft. |
| 76 | Brass, white, Parson's, No. 2 | 0 0 3 | .. | 2 5 5 | 80 1 10 per cwt. |
| 77 | Lead sheet, of sizes | 5 5 76 | 0 5 76 | 77 8 3 | 13 6 8 ,, |
| 82 | Hoop, iron, of sizes | 2 7 35 | 2 7 18 | 264 9 8 | 5 9 7 ,, |
| 84 | German silver rod | 0 0 100 3/32 | 0 0 101 3/16 | 177 0 8 | 1 12 4 per lb. |
| 86 | German silver sheet | 0 2 12 10/16 | 0 2 12 3/16 | 340 10 7 | 1 7 3 ,, |
| 88 | German silver wire | 0 0 19 47/64 | 0 0 19 37/64 | 33 12 5 | 1 11 5 ,, |
| 90 | Tin, block | 1 0 13½ | 0 19 83¼ | 1,544 7 11 | 0 10 7 ,, |
| T. 92 | Quicksilver or mercury | 0 0 20 | 0 0 20 | 34 1 7 | 1 11 3 ,, |
| 94 | Solder, plumber, fine and ordinary | 0 0 81 3/16 | 0 0 75 3/16 | 36 2 2 | F.0 8 3 ,, / O.0 6 3 ,, |
| 96 | Tin sheet | 0 1 70 | 100 sheets | 19 3 4 | 11 13 10 per cwt. |
| | Total | | | *1,01,934 4 3 | |

C. Treated in the storekeeper's books as cordage.
S.S. Treated in the storekeeper's books as small stores.
T. Do. do. tools and plant.

| | RS. | A. | P. |
|---|---|---|---|
| * Total as per this statement | 1,01,934 | 4 | 3 |
| Balance as per stock abstract book and stock account current | 1,00,377 | 15 | 6 |
| Difference | 1,556 | 4 | 9 |



ORDER—dated 8th June 1894, No. 1427 W., Public Works.

Communicated to the Superintending Engineer, V Circle, for the information and guidance of the General Superintendent, Public Works Workshops and Stores.

2. The Superintending Engineer will submit his views on the various suggestions made in the Examiner's covering note and report on the points brought forward as requiring explanation.

3. With reference to paragraph 38 of the Examiner's note, it is observed that the question of the continued maintenance of the Workshops was decided in G.O., No. 3067 W., dated 16th November 1891. Special attention is drawn to the Examiner's remarks in this paragraph, and any tendency on the part of the General Superintendent to set aside rules and orders and to introduce unauthorised innovations in procedure should be suppressed by the Superintending Engineer.

(True Extract.)

Under Secy. to Govt., P.W.D.

To the Superintending Engineer, V Circle.
" Examiner, Public Works Accounts.

Exd. C. A. Munisawmy.
Spare Copies

GENERAL.
ACCOUNT.

# Govt. of {1894} Madras.

## PUBLIC WORKS.

*Dated June, 8th.*

*Read.*

*Encl.*

**G.O., 8th June 1894, No. 1427 W.**

**JUNE.**

**Presidency Public Works Workshops and Stores**

Orders on inspection report on the accounts of the — submitted by the Examiner, Public Works Accounts.