Archives I-10,006—16-8 77.

(1) Number of pages 170

2 (2) Date of repair -9-87

(3) Initials of the Referencer

TAMIL NADU ARCHIVES

OVERNMENT OF TAMIL NADU

PWD. DEPARTMENT

G.O. No. B.P. No.	1494. W.	Press. Mis.
Dated	16. 6. 1884 197 .	

Not to be folded or roughly handled

85

36
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360

16th June 1884, No. 1494 W., Public Works.

1494

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

Read—the following letter from Colonel H. L. PRENDERGAST, R.E., President of Committee, Public Works Workshops and Stores, to the Chief Engineer, Public Works Department, dated Madras, 5th May 1884, No. 14 :—

I have the honor to forward the report of the Committee appointed in G.O., No. 360 W., of the 9th February 1884, to investigate questions respecting the Public Works Workshops and Stores. The papers sent with the Government order are returned.

Enclosure.

Proceedings of the Committee appointed in G.O., No. 360 W., dated 9th February 1884, to report on the Public Works Workshops and Stores.

The effects of the restrictive orders, No. 2488 W., dated 25th September 1882, have been that the value of the out-turn of work has decreased thus—

	RS.
In 1879-80	2,16,876
„ 1880-81	2,08,889
„ 1881-82	1,44,221
„ 1882-83	1,39,937
„ 1883-84 (estimated)	1,00,000

In the last two years, the extra charges have been—

In 1882-83 38 per cent. on the actual outturn.

„ 1883-84 45 per cent.

The percentages of financial and general liabilities, on the capital have been 17·2 and 20·4 in the two years; and against these, the percentages of extra charges on the capital have been 16·1 and 17·4.

The loss in these years has been Rs. 2,928 and Rs. 5,278.

The loss in the three preceding years was Rs. 6,833, Rs. 22,160, and Rs. 18,201.

2. The Superintending Engineer of the I Circle writes that the department has not availed itself of outside agency, because there are extensive workshops at Dowlaishweram.

The Superintending Engineer of the II Circle says he gets all work done at the Bezváda Workshops, except castings and repair of scientific instruments, or any exceptionally heavy work, otherwise they are independent of the Madras Workshops.

The Superintending Engineer of the III Circle states that the requirements have been but few, and there has been little necessity for resorting to private agency.

The Executive Engineer of Bellary speaks unfavorably of some small force-pumps purchased from Messrs. Massey and Company, as not turned out in a workmanlike manner and useless as force-pumps.

The Executive Engineer of Bellary proposes to obtain iron-work of any special nature from Bombay, although the rates may prove somewhat high.

From the IV Circle, the Executive Engineer, Nílgiri division, sends two lists showing that stores to the value of Rs. 4,683 were obtained from May to December 1883 from Messrs. Richardson and Cruddas, Bombay; and that stores to the value of Rs. 7,900 were obtained from the Public Work Workshops from September 1882 to February 1884. The Executive Engineer remarks that no comparison of quality can be made between the two lists; and that articles, when available at Madras, can be procured much quicker than from Bombay.

1

2. After careful consideration of the papers, His Excellency the Governor in Council is not satisfied that the experiment of restricting the operations of the Workshops has lasted sufficiently long to allow of healthy private competition. It should therefore be continued for the present. Meanwhile, inquiry will be made, through the Military Department, whether the Gun Carriage Factory is in a position to undertake the more important work of the department, such as cannot apparently be properly and economically executed in the local market.

(True Extract.)

Major, R.E.,
Under Secy. to Govt., P.W.D.

To the Superintending Engineer, V Circle.
To other Superintending Engineers.
To the General Superintendent, Public Works Stores and Workshops.
" Chief Engineer for Irrigation.
" Consulting Engineer for Railways.
" Engineers-in-Chief, State Railways.
" Consulting Architect to Government.
" Superintendent, Madras Harbour Works.
" Examiner, Public Works Accounts.
" Financial, &c., Departments.
" Revenue Department.
" Military "

Exd. E. Fernandez.
Spare Copies

1494

1P 131

GENERAL.
ACCOUNT.

Govt. of (1884) Madras.

PUBLIC WORKS.

Dated June, 16th.

Recd. *Encl.*

G.O., 16th June 1884, No. 1494 W.

JUNE.

Presidency Public Works Workshops and Stores

Passing orders on the report of the Committee appointed to consider the effect of the order restricting the operations of the — and the status to be assigned to them in future.

1494

21st March 1883, No. 922 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General
Establishment.

No. 164.

Read—the following letter from Lieutenant W. L. C. BADDELEY, R.E., General Superintendent, Public Works Workshops, to the Deputy Chief Engineer, Public Works Department, dated Madras, 17th March 1883, No. 2724 W :—

With reference to G.O., No. 856 W., of 31st March 1882, I have the honor to submit a list of establishment for the Public Works Workshop in lieu of the present permanent and contingent establishments.

2. The total shows a saving of Rs. 109 per mensem, and, so far as the Workshop requirements permit, it has been drawn up to correspond with the rules now in force for the office establishments of the Public Works Department. If my proposals are approved, I beg that sanction may be granted from 1st April 1883.

GENERAL.
ACCOUNT.

Govt. of (1884) Madras.
PUBLIC WORKS.

Dated June, 16th.

Recd. *Encl.*

G.O., 16th June 1884, No. 1494 W.

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21st March 1883, No. 922 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General
Establishment.

No. 164.

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H

Enclosure.

Statement showing the proposed changes in the Office Establishment of the Presidency Public Works Workshops.

Present Scale.			Proposed Scale.					Increase.		Decrease.		Ground of Proposition.	Remarks by Local Government.	Orders of the Government of India.	
No.	Designation.	Amount of Salaries.	No.	Designation.	Gradation. Class.	Gradation. Grade.	Amount of Salaries.	No.	Amount of Salaries.	No.	Amount of Salaries.			Remarks in the Public Works Department.	Remarks and orders in the Financial Department.
		Rs. A. P.					Rs. A. P.		Rs. A. P.		Rs. A. P.	The sanction for the contingent establishment expires on 31st March; but until the Workshop has been reduced to a very small establishment, the clerks, &c., formerly borne as "Contingent" will be necessary with the exceptions shown.			
1	Head Clerk and Cashier	70 0 0	1	Head Clerk and Cashier	III	II	70 0 0	..	..	..	..				
1	Storekeeper	60 0 0	1	Clerk	III	III	55 0 0	..	..	..	5 0 0				
1	Clerk	50 0 0	1	Do.	IV	I	45 0 0	..	..	..	5 0 0				
1	Do.	25 0 0	1	Do.	IV	III	25 0 0	..	..	..	..				
3	Clerks, at Rs. 20	60 0 0	3	Clerks, at Rs. 17-8-0 each	V	I	52 8 0	..	..	..	7 8 0				
1	Clerk	15 0 0	1	Clerk	V	I	17 8 0	..	2 8 0	..	..				
1	Estimator	60 0 0	1	Estimator	Draft	I	60 0 0	..	..	..	..				
1	Gatekeeper	10 0 0	1	Gatekeeper	..	..	10 0 0	..	..	..	..				
4	Peons, at Rs. 7	28 0 0	4	Peons, at Rs. 7	..	..	28 0 0	..	..	..	..				
2	Lascars	14 0 0	..	....	..	..	..	..	..	..	14 0 0				
	Contingent Establishment.														
1	Assistant Estimator	35 0 0	1	Assistant Estimator	Draft.	II	42 8 0	..	7 8 0	..	..				
2	Clerks, at Rs. 25	50 0 0	..	....	..	..	..	..	..	..	50 0 0				
1	Clerk	20 0 0	..	....	..	..	..	..	..	..	20 0 0				
2	Clerks, at Rs. 15	30 0 0	1	Clerk	V	II	12 8 0	..	..	..	17 8 0				
2	Attenders, at Rs. 10	20 0 0	2	Attenders, at Rs. 10	..	..	20 0 0	..	..	..	..				
2	Boys, at Rs. 4	8 0 0	2	Boys, at Rs. 4	..	..	8 0 0	..	..	..	..				
	Total	555 0 0		Total			446 0 0		10 0 0		119 0 0				

Madras,
17th March 1883.

(Signed) W. L. C. BADDELEY, Lieutenant, R.E.,
General Supt., P. W. Workshops.

1494

No. 165.

Order—dated 21st March 1883, No. 922 W., Public Works.

The scale of establishment proposed by the General Superintendent, Public Works Workshops, is sanctioned, with effect from the 1st April 1883, and subject to review after six months from that date.

2. This sanction has been registered as Provincial No. 65 W. of 1882-83 and classified as Establishment.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the General Superintendent, Public Works Workshops.
" Examiner, Public Works Accounts.

Exd. J. Henricus.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of (1883) Madras.

PUBLIC WORKS.

Dated March, 21st.

Recd. *Encl.*

G.O., 21st March 1883, No. 922 W.

MARCH.
Nos. 164-165.

Establishment for the Public Works Workshops, Madras.

The scale proposed by the General Superintendent in lieu of the present one, sanctioned.

1494

I have known Mr. S. G. Wallace now for nearly ten years and have much pleasure in certifying to his qualifications as a Mechanical Engineer and Builder. He was first employed as Manager of an Experimental Manufactory of pottery ware under Government and showed considerable skill and intelligence in all the operations. Subsequently as Contractor for the New Public Offices at Bangalore he worked for three years directly under my orders, and it affords me great pleasure to testify to the unremitting pains taken by him in thoroughly satisfying all my requirements. Mr. Wallace showed great intelligence and resource in this large work. He was scarcely a day I think absent from it and altogether performed his duty with the greatest honesty and zeal.

It is not necessary that I should speak of Mr. Wallace's knowledge of metal work as this is his speciality in this respect he is thoroughly proficient.

R. H. SANKEY, Lieut.-Col., R.E.

22nd February 1871.

This certificate was given by Gen Sankey to Mr Wallace in 1871, — but I know that, before Gen: Sankey left India in 1883, he had seen cause to alter his opinion of Mr Wallace, & regretted that he could not recall the certificate.
25.5.8

I first made Mr. Wallace's acquaintances in A. D. 1859, when he was strongly recommended to me as an expert and skilful Mechanic and Gun-smith. He was subsequently employed under me as the Contractor of the Public Offices and other works in Bangalore and he has lately supplied Iron Pipes for the project for conveying water to the Maharajah's Palace in the Mysore Fort. I have thus had many opportunities of ascertaining his qualifications and can recommend him as a good practical Builder and Mechanic.

R. C. DOBBS, C.E.,
Mysore, D.P.W.

Mysore, *29th March* 1879.

Tumkur, *1st April* 1879.

This is to certify that I have known Mr. S. G. Wallace for a period of nearly twenty years as a Mechanic, Builder and Contractor. He was Proprietor of the Victoria Iron Works for many years and turned out first class work. He built the large public offices in Bangalore, the new Court houses attached to the Division office and contracted for many other minor works. He has supplied me with tools when I was in charge of relief works in the neighbourhood of Bangalore and they were strong and well made.

Mr. Wallace is an intelligent, clever workman. He can carry out almost any design either in iron or masonry which is given to him, and I have great pleasure in recommending him to any company or firm requiring a really able Superintendent.

J. LACEY,
Deputy Commissioner.

Mr. S. G. Wallace late of the Victoria Iron Works Bangalore, has supplied several tons of cast iron pipes for tanks' sluices in this Division. He is a good Mechanic and Manufacturer of General Hardware. He has done work for the Mysore P.W.D. for many years.

C. H. M. KENSINGTON, Lieut. R.E.
Executive Engineer, Kolar Division.

Kolar, *4th April* 1879.

This is to certify that I have known Mr. S. G. Wallace for many years, both in his Regiment the Madras Fusiliers and subsequently when he had a gun-smith shop in Bangalore and was a large Contractor to the D. P.W. I have always found him to be a steady and trustworthy man and he has given me satisfaction in all the commissions which he executed for me both in my private and public capacity. He deserves much credit for having started an Iron Foundry at Bangalore and for his efforts in opening out a Coffee Estate, I am sorry his enterprise has not been attended with the success it deserved.

W. HILL, Major,
Madras Staff Corps,
Ag. Commr. Nugger Divisions.

Kalhatti, *23rd April*, 1879.

Bangalore, *7th April*, 1880.

I have known Mr. S. G. Wallace, Proprietor of the Victoria Iron Works, Contractor and builder of the Government Public Offices in Bangalore; and can testify to his ability and skill in carrying out various mechanical works and I shall always be glad to hear of his obtaining employmens worthy of his general knowledge of Mechanics.

M. GAYNOR, Lt.,
Mechanical Executive Engineer,
Late of Bangalore.

Pl No 3
205/156
6264

PRESIDENCY PUBLIC WORKS WORKSHOPS,
Madras, 20th August 1883.

No. 632 W.

1494

From

THE GENERAL SUPERINTENDENT,
PUBLIC WORKS WORKSHOPS,

To

THE Deputy Chief Engineer
P. W. D.
Chepauk.

Enclosures.

SIR,

With reference to your No 1538 C of 15th August 1883, I have the honor to submit a revised Office Establishment list for the P. W. Workshops. The duties to be performed by the Clerks are as follow:-

P. Cothundasawmy Pillay - Cashier & Accountant and Office Manager
C. Kistnasawmy Moodelliar - Storekeeper
M. Ruttna Moodelliar - Billwriter and Assistant to the Accountant.
C. Rajaruttna Pillay - Musterwriter & Time Keeper
M. P. Webb - Registering & Despatching Clerk.

2. The work of a Workshop Storekeeper does not depend entirely upon the amount of Stores in his charge; for all articles required for the use of the Workshops are passed through the Stores, and are not issued direct from the suppliers to the Foremen or Maistries.

The

3. The Bill writer has to post all material and labour expended on the different works, and on the completion of a work to prepare the bill.

4 The Muster writer has to check the attendance of the workmen and to see that their time is properly entered against the different works.

5 The registering and despatching clerk has to register all orders received and to arrange for the despatch of all articles finished.

6 With regard to the Establishment of the P. W. Stores, I regret to say that in my opinion reduction is impossible, for in addition to the ordinary work for the D. P. W. there is always work of some kind for State Railways.

7 The accompanying statement will shew that there is no tendency for the work of the P. W. Store Department to diminish but on the other hand I believe that it must increase with the development of the Railways.

8 In addition to the Establishment shewn, several hundred coolies are employed every month in landing & shipping and despatching stores; these men are taken on and dismissed as required.

The

The transport of stores to the Railway stations is usually done by contract.

I have the honor to be
Sir,
Your Most Obedt Servt
Lieut R.E.
Genl: Suptt P. W. Workshops &

1494.

8 82

Presidency P. W. Workshops.

From P.W. Or. 7158

THE GENERAL SUPERINTENDENT,
P. W. WORKSHOPS,
Madras.

(11)

To

The Dy. Chief Engineer
D.P.W.
Chepauk

No. 632 W.

Dated 20th
Despd. 20th
Recd. 21
August 1883

NO. OF ENCLOSURES. 2

No. 14 911 W a/16-6-83

Subject.

Forward revised office Establishment List for the Workshops, & shewing the duties to be performed by each Officer or Clerk

---

11-4-84

MASSEY & Co.

Madras April 8th 1884

1494

The Secretary
to Government
Public Works Department.

Sir,

We learn that a Committee has been appointed to consider the question of reorganizing the Public Works Workshops. We have the honor to call your attention to the facts that we have undertaken the work hitherto carried on there, and are prepared if necessary to execute such work for a period of say 3 years at rates not over those at present charged.

In nearly all instances our rates are under, and the work

9 ~~83~~

10

~~84~~

D.P.Wks [illegible]
4219

done quicker, but in some cases we have been so owing to the uncertainty of other work of that nature from the Government. and special circumstances connected with the work. which we are prepared to explain. even in these instances we expressed our willingness to execute the same, and met the Superintending Engineer all in our power. Recd 15/4/80

Our wish is to secure work, and we are prepared to execute the same upon the most reasonable terms if entrusted to us.

No 119 [illegible]

We have the honor to be
Sir
Your most Obedt Servants
Massey & Co

H.S. 8/4.

1494

10

84

No 716 C d/ 30-3-83.
G.O. 2488 W d/ 25-9-82
" 2434 W d/ 9-9-82

No 805 C d/ 14th April/83

Copy of the above forwarded to Messrs P. Orr & Sons for information with reference to their letter of the 29th March 1883.

2. The further report promised by Lieutt Baddeley will be awaited

9/4

Dy W
14/4

To Messrs P. Orr & Sons
The Genl Supdt, P.W.W.

P.W.C. No 2939

Public Works Workshops.

From
THE GENERAL SUPERINTENDENT,
P. W. WORKSHOPS,
MADRAS,

To
The Chief Engineer
D P W

No. 16 W.

Dated 4 | April 1883.
Despd. 5 |
Recd. |

No 1494 W d/ 16-6-82

No. OF ENCLOSURES

No 805 C d/ 14-4-83.

Subject

Forwards his remarks on the request of Messrs Orr & Sons to have a trial of the repairs of Scientific Instruments for Govt. efficiently & at rates less than those hitherto charged by these Workshops.

Consulting Architects office
Chepauk, 13th September 1883

No. 679

1494

From
The Consulting Architect
to Government

To
The Dy Chief Engineer
Public Works Department

Sir,

I have the honor to return the letter received with your office Note No. 1924 dated 6th Instant and to report that Messrs. Massey & Co. supplied this Division with 23 Cast Iron Columns for the additions to the Museum and 4 wrought Iron plate girders for the new Verandah to the P. W offices Chepauk. These orders were well and expeditiously executed. They have also in hand some wrought Iron girders for the Ameer Mahal and a lot of Cast Iron rain piping for the Post and Telegraph office.

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

Major R. E.
offg. Consulting Architect to Govt.

No 716 C d/ 30-3-83.
G.O. 2488 W d/ 25-9-82
" 2434 W d/ 9-9-82

NP[illegible]

No 805 C d/ 14th April 83

Copy of the above forwarded to Messrs T. Orr & Sons for information with reference to their letter of the 29th March 1883.

2. The further report promised by Lieutt Baddeley will be awaited

9/4

14/4

To Messrs T. Orr & Sons.
The Genl Supdt, P.W.W.

P.W. C.E. 2237

Public Works Workshops.

From
The General Superintendent,
P. W. Workshops,
Madras,

To
The Chief Engineer
D P W

No. 16 W.

Dated 4 | April 1883.
Despd. 5 |
Recd. |

No 1494 W d/ 16-6-83

No. of Enclosures.

No 805 C d/ 14-4-83.

Subject

Forwards his remarks on the request of Messrs Orr & Sons to have a trial of the repairs of Mathl. Sc Instruments for Govt. efficiently & at rates less than those hitherto charged by these Workshops.

Entd. in Receipt Regr

Consulting Architects office
Chepauk, 13th September 1883

No 679

1494

From
The Consulting Architect
to Government

To
The Dy Chief Engineer
Public Works Department

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I have the honor to be
Sir
Your most obedient Servant.

Major R. E.
Offg. Consulting Architect to Gov.

1494

~~32~~ 12

11P/11

(11) Dep No 7877

From
The Consulting Architect
to Government

To
The Dy Chief Engineer
P. W. Dept.

No. 679
Dated 13th September 1883.
Received 13

[illegible]

[illegible]

subject

Orders for Iron work executed by Messrs. Massey & Co

DW

MASSEY & C°

Madras August 31st

14941.

To The Secretary
to Government
Public Works Department.
Madras.

Sir.

We have the honor to bring to
notice that we are prepared to
-dertake the manufacture and repa
of Machinery. Bridges. Roofs. and
Castings as hitherto executed by the
Public Works Workshops;

Our Works have been enlarged durin
the last 6 months, and machines of
the latest and most improved type put
down to expediate, and cheapen work.
The Foundry. Smiths & Machine shops

2313

PW. Cons. 7507

are in the hands of trained European Foremen, and an additional Engineer is now on his way out from England to ensure further supervision, accuracy and sound workmanship.

We represent in Southern India several of the leading English Firms, and for Iron ... and general requirements can we feel sure execute any order intrusted to us.

Our financial position is firm, and if necessary we can hand [illegible] references.

We have the honor to be
Sir
Your most Obed.t Servants
Massey & Co.

1494

Presidency P. W. Workshop

Dr. Revenue Account for the year 1882–83 Cr.

1881–82	Per cent on gross receipts	Expenditure	Abstract	1882–83	Per cent on gross receipts	1881–82	Earnings	Abstract	1882–83
[illegible]	[illegible]	Establishment		22097 11 2	57.26	[illegible]	By Centages	✓	38,594 5 2
[illegible]	[illegible]	Contingincies		318 3 6	.82				
[illegible]	[illegible]	Repairs to Machinery &c.		3466 6 11	8.98				
[illegible]	[illegible]	Bills not recoverable		" " "	"				
[illegible]	[illegible]	Depreciation Block		2189 14 6	5.68				
[illegible]	[illegible]	— do — Machinery		1717 10 6	4.45				
[illegible]	[illegible]	Pension & Leave allowance		2093 15 2	5.43				
[illegible]	[illegible]			31883 13 9	82.62				
[illegible]	[illegible]	Balance Net Earnings	✓	6710 7 5	17.38				
[illegible]	[illegible]			38594 5 2	100.00	[illegible]			38594 5 2

Madras
21st July 1883

Net Revenue Account

1494.

To interest at 4% on the Captail of Rs 240967-13-4	9638 11 ..	By Net Earnings	6710 7 5
		" Balance of interest due to Govt.	2928 3 7 ✓
Total	9638 11 ..	Total	9638 11 ..

Madras
21st July 1883

1/37/5

36 16

1494

Table shewing the financial position of the Workshops during the years 1867–83

						Cost of							
	Capital	Interest on Capital	Outturn	Profit	Loss	Permanent Establishment	Contingent Establishment	Contingencies	Fuel, oil and repairs to machinery & plant	Percentages or profits on outturn to meet the cost of Genl. charges Interest &c.	Increase to Capital	Decrease to Capital	Remarks
1867–68	148470	No Interest	100354	2162		9110			2250	24395	628		Moiety of Genl. Supdt's pay and allowances was not debited to Workshops in 1867-68. Previous to 79-80 cost of Permanent Contingent Estt. & Contingencies were not shown separately
68–69	150118	7656	224457	560		17726			3669	38416	8063		
69–70	173119	7656	252440	7026		24135			4785	53101	8664		
1870–71	187632	8374	183988		590	20819			3949	37562	3516		
71–72	170592	8530	197507	3216		17626			2558	34477	36933		
72–73	209680	10479	258160	2426		20063			3836	42283	28063		
73–74	225699	10794	270570	16257		22270			4934	55288		16418	
74–75	219232	10962	300646	3474		21035			5609	49648	27167		
75–76	245522	12276	282326	22894		23963			6092	72673	58174		
76–77	304438	16222	444308	28601		28108			5861	85825	82603		
77–78	397741	19897	470476	70900		33031			12283	144711	86269		
78–79	471768	23587	250201		727	33377			24975	91268		3878	
79–80	476594	23830	416876		10263	13303	14530	1930	15288	58116		49522	
1880–81	417764	20897	260009		22160	12831	9812	1592	8036	52128		61699	
81–82	367198	13386	224363		6055	14229	4820	697	4761	33967		115976	
82–83	280980	9839	199937		2928	17370	4680	318	3510	36130		69977	
	1,53,033	7500	206000			[illegible]				32000			

Capt. R.E.
22/2/84

37

1 The accompanying table gives a considerable amount of information regarding the financial position of the Workshops during a series of years

2 Up to 76/77 the Workshops was at Chepauk & it will be seen that the two following years (in the present buildings) in 76-78 were most disastrous ones, for Capital was increased by 1,67,762 & although large profits were made by the famine works, these were expended in large purchases of Stores which were a burden to the Shops for many years after.

3 I took charge in Novr/79, so although the accounts for 78-79 were submitted under my signature, I was only partly responsible for the working during that year.

4 The improvement that had been made in the financial position of the Shops, at the date of the restrictive 25th Septr/82. orders, was most marked; the chief points being.

(1) Decrease to Capital & consequent decrease to Interest thus allowing work to be charged for at lower rates.

(2) Decrease in Establishment Charges although in 81-82 Mr Francis & 18 38 Mr Clarke were promoted & the latter brought on permanent est.

(3) Decrease in expenditure on fuel oil.

5)

The outturn during 82-83 was only 1,39937 & yet the loss was only 4650, I think this clearly shews that if by the order of 25th Sept /82, work had not been suddenly stopped, the outturn during 82-83 would have been large enough to shew a profit

6 In 81-82 the outturn was fair & there would have been a profit of 1984 Rs only the Exr ruled that the loss on the sale of old materials (such articles iron &c purchased by Mr Faulkner) should be debited against the profit & loss account for that year.

Book value of Materials 11274
Sold for 2856.
Amount debited against the working of the Shops for 81-82 Rs 9418

This sum of Rs 9418 should in my opinion have been debited to Govt as it shews that the property of Govt (for the use of which the Workshop had been paying Interest) had deteriorated by that amount; however this might have been ~~was~~ arranged, it should not have been entered so as to shew a loss in the working of the year 81-82

The Govt admitted that the loss was abnormal & perhaps not of the nature of an annually recurring charge, & Govt in their order

order No 2266 W of 2nd Sept /82 said that the financial status of the Shops had been considerably improved.

7 In order to shew the real working of the Shops in any particular year; that is to say apart from the influence of previous years whether for good or evil; the accompanying forms of account* are in my opinion absolutely necessary — Similar forms are used by State & Guaranteed Railways to draw a clear distinction between Capital & Revenue.

*Revenue
Net Revenue

8 The figures that I have given are I think sufficient to shew that, with a continuity of work next year, the Workshops can work without loss and with a reduction in the rate of percentage; the chief being from 50 to 25 percent on English materials, the main item under this head being Iron.

9 The Commercial aspect of the Shops may be thus stated; it is now in a position to satisfactorily take the place of competition in the Madras Market & thereby reduce the price of iron work generally —

10 Apart from the Commercial aspect, the value of the Shops to Govt must not be

be
overlooked

(1) As a depôt from which mechanics can be sent to any part of the Presidency

(2) As a training school where numbers of mechanics of all classes have been practically taught

(3) As rendering it unnecessary to start separate Workshops in some of the large Divisions & for special works such as the Harbour & large projects such as Sangam, Pennair, Barur &c &c

4) As regards the economy & saving of time that results from the Old Stores & Workshops with their several branches being united under one Supdt.

W C Bartholomew
Capt. R.E.

26/3/83.

FROM,
THE SUPERINTENDING ENGINEER
FIRST CIRCLE.

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

1494.

DOWLAISHWERAM, 21st March 1883.

SIR,

With reference to your Circula
567 C. 9th Instant, I have the honor t
state that as this Circle has extensiv
Workshops of its own, at Dowlaishw
-ram, it has not been in the habit
of getting work done at the Madra
Workshops, & therefore no special step
were necessary to prevent demands
on those Workshops & no difficulty
either in the shape of increased prices
of delay, or of difficulty in getting
work done has been experienced
the change in the arrangements co
-nected with those shops.

I have the honor to be,
Sir,
your most obedient St.

C. Walch

Offg. Supg. Engr. 1st Circle

Compt. 3K

1494.

21 H

From
The Supg. Engineer
1st Circle
No. 1141 C a/31-5-83
To The Chief Engineer
P.W.D.
Madras

Dated 21st }
Despd. 24th } March 83
Recevd 30 }
No. Regrs a/16-6-8
No. 3107 G.C.
Enclosure Nil

Public Works Workshop at Madras — Stating that no inconvenience has been experienced from the change in the arrangements con=nected with these — as this Circle has an Extra Workshops —

wd. Copy Recd 25/5

Ootacamund.
3rd March. 1884.

1494.

To
Major C. Bowen. R.E.
Dy. Chief Engineer.
Madras.

Sir

I have heard that Govt. are closing the Public Works Work-shop; If such is the case, I beg to state that I am willing to take over the premises, with all tools and machinery, at a monthly rental, and will engage to supply all tools etc, at a fixed rate, for the next five years; and all demands of Govt. should be complied before private parties. I would also be glad to take stores from the Govt. at the rates allowed. Should the Govt. feel disposed to this arrangement I am willing to take charge at any time, and all works in an unfinished state, could be taken over at a valuation As I have had great experience in such works and have no doubt of giving every satisfaction.

With regard to the Foreman in charge of Mathematical Instruments, I could keep him on as now, and should the Govt. wish to place any apprentices under me for instruction, I would gladly undertake the task. I am known to many Engineers in the Presidency having had large works for many years. I enclose a few certificates out of many which I have. Trusting you will excuse me taking this liberty

I remain, Sir
Yours obediently
S. G. Wallace

W7

Chepak
No 2/4 892 C 22d April 84

Forwarded, in continuation of No 865 C, dated 16 April 1884, to Colonel Prendergast R.E., for consideration by the Workshops Committee

(By order

C. Unwin Major R.E.
Dy Ch. Engr P.W.D.

No 673/

1494 w of 16

6-3-84

No. 36 L.

Superintending Engineer's Office,
2nd Circle, Masulipatam
4th April 1883.

From

The Superintending Engineer,
1494 2nd Circle.

To

The Chief Engineer,
Public Works Department.

Sir,

I have the honor to reply to your memo. No. 567 C of the 9th March, regarding work hitherto obtained from the Public works Workshops, Madras.

2. Kistna. All the work for this District is done at the Bezwáda Workshops, we have never therefore had much work from the Madras shops, and their being closed, does not affect the Kistna works. All ordinary work can be done at Bezwáda, except Castings, these we obtain from Dowlaishwaram, but the Castings there are not of good quality.

3. Nellore Division. Here also the small workshop turns out all ordinary work. Hitherto lifting screws have been obtained

23 42

from Madras. No work has been obtained as yet from private firms at Madras.

4. Sangam. The Executive Engineer, Sangam Division reports that, since the receipt of G.O. No 2084 W. of the 12th August, he has ordered some shutters with screw gearing from the P.W. Workshops, and that he ordered these, because he did not think any private firm in Madras could be trusted to make them up without risk of mistakes.

5. I have requested Captain Campbell to try Messrs Massey and Co, or one of the Bombay firms, Richardson and Co. If these firms undertake the work, I should not be afraid of mistakes, if the working drawings were sufficiently complete and accurate.

I have the honor to be,
Sir,
Your most Obedt Servant.
J. W. Rundall
Superintending Engineer,
2nd Circle.

Compd. JW,

For back references Vide Circ. No 61/83

P.W. No. 3058

HPN1

From

The Superintending Engineer
3rd Circle

To

The Chief Engineer
P. W. D.
Madras.

Dated 4th April 1883
Despd 5th do
Recd 10/4/83

No. 104/C of 31-5-83

No 3 G.4

[illegible]

Public Works Workshops, Madras – Reports that no inconvenience has been felt from the closing of the –

Compile

CM 10/4

Ordd 20/5 Retd 25/5
Od 28/5

1494

SUPERINTENDING ENGINEER'S OFFICE,
~~Madras~~,

No. 154/m

Bellary ~~Chepauk~~, 13th April 1883.

From
Major S. C. Clarke R.E.
THE SUPERINTENDING ENGINEER,
III ~~1st~~ CIRCLE,

To
THE Chief Engineer
P.W.D.
Madras

SIR,

Enclosures.

With reference to your Circular No. 567 C dated 9th March 1883, I have the honour to report, that with the exception of some small repair work to certain Tools and Plant, nothing has been executed for this Circle by the Public Workshops during the past Official year.

2. It would in my opinion be advisable for this Department to be provided with some private agency either in Madras or in Bombay; to facilitate the procuring of any class of Tools &

25 #4

Plant, not obtainable in the Local market.

I have the honour to be
Sir
Your most obdt. servant

Major R.E.
Offg Superintending Engr.
3rd Circle

MR

R494-

26 115

For back papers vide Cir. 3041/83

P.W.C. No. 3184

From

The Superintending Engineer,
III ~~1st~~ Circle,

To

The Chief Engineer
P.W.D.
Madras

Dated 13th
Recd. 16 } April 1883.

ENCLOSURES.

No. 1041 Cas 31-5-83

No. 16 94 w a/16. 6 82.

No. 154

Tools & Plant.

Suggesting that — may be obtained from any private agency either at Madras or at Bombay.

Compile

Cir /1814

W.E. 20/5 Recd 25/5

SUPG. ENGINEER'S OFFICE 4TH CIRCLE,
Coimbatore, 5th April 1883.

No. 139

1494

From,

The Superintending Engineer,
Fourth Circle.

To,

The Chief Engineer
P. W. Department

Sir,

In reply to your Circular No. 567 of 9th ultimo I have the honor to inform you the Executive Engineers of North Arcot, Salem, and Coimbatore report that they have had no occasion to apply to the P. W. Workshops during the past year; and so are unable to furnish information on the points noted in your memo.

2 The Executive Engineer Nilgiri Division has had work done at the Railway workshops, Madras; and is obtaining articles from the School of Arts, or from Bombay. No difficulty or

delay,

delay, or increase of cost is anticipated, and in some cases articles can be obtained cheaper from Bombay.

3 The work done for this Circle by the workshops was probably entirely in compliance with orders of the Consulting Architect and in connection with Government House Ootacamund. Where the Executive Engineer gave orders, he seems to have applied to other institutions (in preference to the workshops), or to private firms.

I have the honor to be,
Sir,
Your most obdt. Servant
J. Beatty Colonel R.E.
Supg. Engineer 1st Circle

1494.

22 #7

For back references vide Cro: 3041/83

E.W. Cro. 2947

1313/139

From

The Supg: Engineer,
of
Fourth Circle

No. 1041 Ca/31-5-83

Dated 5th } April/83.
Despd: Do. }

[illegible]

No. [illegible] a/16-6-84

No: 139

P.W. Workshops:—

Reports that the majority of the division officers state that they have had no occasion to apply to the — during the past year for executing any work.

Compiled
CH 6/4/83

Ord 18/5 Rept. 25/5

Od 21-5

No. 54

SUPERINTENDING ENGINEER'S OFFICE,
5TH CIRCLE, MADRAS,
Chepauk, 4th April 1883.

1494.

From
THE SUPERINTENDING ENGINEER,
5TH CIRCLE,

To
THE Chief Engineer
D.P.W.

SIR,

Enclosures.

With reference to your Circular No. 567 of the 9th March 1883, I have the honor to report

1st Little work such as was previously carried out by the Public Works Workshops has been done by other Agency. The Reasons for this are, that orders had been already given to the Public Works Workshops in the past Official year

29 ~~48~~

year. The Executive Engineer of South Arcot considers that there has not been sufficient time to test the general question of closing the Government Workshop. He has sent orders to the firm of Messrs. Massey and Company at Madras.

The Executive Engineer of the Buckingham Canal has given one order to Messrs. Massey, and sent others to Dowlaishweram.

The Executive Engineer in Chingleput has made no great demand on the Workshops; but had work done there, as he thought it not necessary to seek other Agency.

The Executive Engineer at the Presidency says he had work done at the Workshops to the value of over Rs. 14,000, as this work could not have been done Departmentally.

2 & 3 - There has been not much change.

4 - The reduction of demands has not been regarded as imperative, while the Workshop is not precluded from taking orders.

I have the honor to be
Sir
Your Most Obedt. Servt.
Newth Prendergast Coll. R.E.
Superintg. Engr.
5th Circle

For back references vide C. no. 3041/83

From

THE SUPERINTENDING ENGINEER,

5TH CIRCLE,

To

THE Chief Engineer
P.W.D.

Dated 4th } April 1883.
Recd.

No. 1494 W of [illegible]

ENCLOSURES.

No. 1041 C of 31-5-83

No. 54

P.W. Workshops—

Reporting that no work previously done by the— has been carried out by other Agency.

Complete
CM/5/4

Cnty 18/5 Ret. 25/5
[illegible] 25.5

No. 172 T.J. Supg. Engrs. Office 6th Circle
Trichinopoly 24th April 1883

1494.

From,
The Superintending Engineer
6th Circle

To
The Chief Engineer
P.W.D.

Sir,

With reference to your Circular No. 567C of 9th Ultimo, I have the honor to inform you that the Executive Engineers report as follows.

The Executive Engineer Negapatam Division states that no work of the kind referred to has been recently undertaken in his Division, and considers that there will be no difficulty in getting work of the kind required in the future done either at the Negapatam Railway shops or by Messrs. Massey and Co. Madras.

The Executive Engineers Tanjore Trichinopoly and Cauvery and Vennaur Regulators report that they had no occasion to order from private

8/50 firms

For

firms any work of the kind previously done at the P. W. Workshops subsequent to the issue of the G. O.

The Executive Engineer Madura states that he has not ordered any articles from P. W. Workshops, but that he had iron work to the value of Rs 2278 for the Jail done locally, and experienced no difficulty in carrying out the change.

The Executive Engineer Tinnevelly states that he has not ordered for any articles from P. W. Stores. He obtained asphalte from Messrs Oakes & Co. and a Cast Iron standard from Messrs Massey and Co. Madras. His orders to these firms, he says, were promptly and satisfactorily attended to and that the prices charged are reasonable. I believe that we shall have no difficulty in obtaining things from private firms either in Madras Calcutta or Bombay, but I fear

there

there may be difficulties hereafter with regard to quality as of course the articles cannot be examined before delivery, and to a very great extent the firms name will be the only guarantee as regards quality and in many cases as regards price also.

1494.

I have the honor to be

Sir,

Your most obedient Servant

Lieutt Col R.E.

Superintending Engineer 6 Circle

For back references Vide C. No
3041/83

P.W.C. No 3497

From,

The Supt Engineer
6th Circle.

To,
The Chief Engineer
P. W. D.

No 172 T.J

Dated 24th April/83.

Recd 25/4/83

No 1674 [illegible]

No 1041 Ca/31-5-83

Public works work
- shops at Madras

Reports regarding
the restriction of work
in the —

Compiled

Orly 18/5 Recd 25/5
[illegible] 25.5

No. 29

Consulting Archts. Office
Chepauk 9th April 1883.

1494.

From
The Consulting Architect
to Government

To
The Chief Engineer, P. W. D.
Roads and Buildings branch

Sir,

I have the honor to state in reply to your Circular No. 567 C dated the 9th March that my dealings with the Public Works Workshops have been too few to enable me to generalize on the effects of closing this Institution under the heads specified by you.

I have the honor to be
Sir
your most obedt. servant

R. Chisholm

Consg Architect to Governmt.

1494.

805 C of 14. 4. 83
716 C of 30. 3. 83
567 C of 9. 3. 83
232 D of 1. 2. 83
220 C of 26. 1. 82
250-1 C of 23. 1. 83
B No. 3329 W of 16. 12. 82
" - 2995-6 W of 13. 11. 82
A - 3183 W of 5. 12. 82
" - 2489 W of 28. 9. 82
" - 2488 W of 28. 9. 82
B - 2434 W of 19. 9. 82
A - 2064 W of 12. 8. 82
" - 3081 W of 12. 12. 81

Roads and Buildings

From
The Consulting Architect
to Government

To
The Chief Engineer, P.W.D.
Roads & Buildings branch

No. 29

Date 9th April 1883.

Received

No. 1041 C of 31-5-83

No. of enclosures.

Abolition of the Public Works workshops.

Confidential

Cn
10/4

Orly 18/5 Recd 25/5
OLS 25.5

1494

To W.

It appears from the Report of the Committee that private firms have not as yet satisfactorily supplied the wants of the P.W.D. It was hoped that by restricting the operations of the Govt workshops increased demand in the local market might lead to the establishment in Madras of a branch of one of the firms which in Calcutta & Bombay appear to meet all requirements. This expectation has not been realised and the only private firm that has done work for the Department is apparently that of Massey & Co, who have had really a monopoly and of course have charged very high rates.

I do not however agree with the Committee in considering that the re-establishment of the Govt. Workshops on their former footing is therefore necessary - I should continue the experiment, retain the workshops on their reduced footing and throw the work on the local market believing that in time our wants will be satisfied -

JCG
16/5/84.

19/35

P.W.S. 47/5.
2. 16/6/84

January 23rd 1884

P.W. Workshops & Stores

1494.

Memo

I do not think that it has ever been suggested, that a Committee of P.W. officers, should take up the whole of the questions connected with the P.W. Stores and Workshops, and lay before Government definite proposals for their settlement.

About 3 years ago a Committee took up the general question of stores, and some remarks were made about the P.W. Stores and Workshops, but the information at the disposal of the Committee was very limited, and no good resulted.

The matter was taken up strongly by General Sankey, but so far, the only result has been to limit the operations of the shops (Except in the Mathematical Instrument Department) leaving the system of accounts unchanged, an obviously unsatisfactory arrangement, for the accounts were framed to shew the working of a factory on commercial principles and were not intended for an institution that is only allowed to take up a limited quantity

of work.

Without a continuity of work, it is impossible to retain the best workmen, the percentage charges cannot be reduced, and the shops cannot be worked economically.

Last year, 1882/83, the accounts were satisfactory, because there was a fair amount of work up to the date of the restrictive order, this year the accounts will shew a large loss owing to the want of continuity in orders for work.

Quite recently a large order for truck wheels for Singum was carried out and for a time the Foundry and Machine shop were full of work; at the present time the Foundry is idle, and the few orders booked will have to wait until there are sufficent for one running of the cupola.

Very shortly a large order for shutters and screw-gearing for Kurnool will be put in hand; in the meantime many lathes are idle and the carpenters shop is not working to half its strength.

I believe I know the whole history of the stores and Workshops from their

commencement up to the present time; and if a Committee was formed I could lay before each member a Memo: giving the fullest detail of every question connected with the institution.

I am certain that it is impoſsible for any one man to deal satisfactorily with the subject, and if it is not taken up until I have vacated the appointment by furlough or otherwise, the difficulties of the Committee will be materially increased.

(Sd) W. C. L. Baddeley
Capt. RE

1325/131

To W.

P. W. Workshops.

I received last night this note by Capt. Waddell which bears on the question now before you.

C.J.

24-1-86

C.A.W.

1494

These papers connected with the P. W. Workshops must be circulated for orders.

Please draw up a note to be circulated with them, adverting to my previous note of 29.5.84, — the remarks thereon by Members of Govt, — and the orders passed. Vide Pro: of 16.6.84, No. 1494 W.

Since those orders were issued 18 months have passed, and private enterprise is still represented, as then, by two firms Messrs Massey & Co & Messrs P. Orr & Sons.

The Gun Carriage Factory has distinctly declared itself unable to undertake work for the P.W.D. Vide G.O. of 1.8.84. No. 1672 W.

All this should be alluded to in the note, which should contain a recommendation for the reestablishment of the shops on their former footing.

On again reading over my note of 29.5.84, it seems scarcely possible to say more than was said then.

39

1.12.85

Please put up
original file of
G.O. 18-6-84 No. 1494

1494

25-11-85

To W.

Original file now
put up - D.P.
25-11-85-

Note. 1494.

In para 4 of G.O. No: 2123. W. & 11 Septr last S.E.v.C. was asked to report on the question of the continuance or otherwise of existing orders restricting the operations of the P.W. Workshops in regard to work for other Depts and for the general public. In his reply Col: Burton shows that the workshops have suffered considerably, that the demands for work have not decreased although many have to be refused. He further reports that the workshop charges for repairing mathematical instruments &c compare favorably with P. Orr & Sons' charges, and that the workshop work is much better.

?gA 41

Col: Prendergast is of opinion that the reopening of the workshops" would be of general benefit as well as advantageous to the working of the ~~#~~ shops" — and that "we cannot do better than throw the workshops open again to the public and to the other Depts of Govt".

For orders.

F.B.
25.11.85.

25/11/85

C.A.W.

In attached Note, E I speaks of "the Firms which ... Calcutta & Bombay appear ... requirements"

RW 1494.

These papers may be put into the Deptl file of the Cast G.O. on the question of retaining or abolishing the workshops — G.O. No 1494 W dt 16.6.80 I think.

15/xi/85

~~30~~ 42

W 2D

I can find nothing ... record to show ...at the S.W. Dept ... the other Presidency ...ns depend entirely ... private workshops, ...h the précis of ...plies recorded ...th G.O. 20.6.8 W d

Col: Prendergast
is of opinion that
the roads
wa
be
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ag
ac
D

25.11.85

25/11/85

C.A.W. 43

In attached note, EI speaks of "the Firms which "in Calcutta & Bombay appear "to meet all requirements" of the P.W. Dept. 1494

Is anything on record in this file to show that this is the case, — that the P.W. Dept. in the other two Presidency towns depend entirely on private workshops for their wants in such matters? I have not seen any such information on record, — but there may have been some communications on the point which I have not noticed.

20.5.84

To W

2A

I can find nothing on record to show that the P.W. Depts in the other Presidency towns depend entirely on private workshops; but the précis of replies recorded with [illegible] 20.6.84 w

82

13th Aug. 84 shows that large factories do exist both at Calcutta & Bombay capable of executing work to "any extent".

R.S.
20.8.84

In para 7 of Committee's report it is stated that offers have been received from a Mr. Wallace, & from Massey & Co., to undertake the work hitherto done for the P.W. Dept. at the Madras Shops.

I cannot find those letters.

Are they in the file?

If not available here, please wire for them.

12494/44

19.5.84

To W/

I have found Massey & Co's Tender in the file. It is attached to this slip. Mr. Wallace's is not here and has accordingly been wired for.

21

R.S.
19.5.84

187

From The Executive Engineer
Bangalore Division
To Major C. Bowen R.E.
Supdg. Engineer
Madras P.W. Dept.
Dated
Despatched
Received Bangalore 13th March 84

Enclosures No. 1

General No. 210
No. 1007 } 187

As requested by the Public Works Secretary has the honor to forward a statement showing work executed by Messrs P. Orr & sons, in the way of repairing mathematical instruments, for the Bangalore Division

Tf
65

This is not the one quoted in para 7 — where it is said to bear date 8.4.84

LM
19-5-84

To/ W

No other Tenders on the file R.S. 19.5.84

Statement of Surveying & Mathematical Instruments repaired by Messrs P. Orr & Sons for the Bangalore Division.

1494.

Items as per work order.	Condition of Instruments.	Cost of repairs.	Date of despatch of Instruments.	Date of receipt of Instruments.	Remarks.
4. Prismatic Compasses	Entirely out of order & screws &c. wanting.	96 3 ·	20-10-83	9-11-83	2 Compasses in which the magnetic Cards were fixed wrongly were returned for correct fixture.
3. Levels	In very bad condition & some parts wanting.			18-11-83	Work very satisfactorily carried out.
1. Theodolite	Out of order		26-11-83	10-3-84	Bill not received yet. Work well executed.
5. Prismatic Compasses	Out of order and magnetic prisms &c. wanting.	60 · ·	26-11-83	31-1-84	Do. Do.
4. Levels	Entirely out of order & some parts wanting.		26-11-83	10-3-84	Bill not received yet. Work well executed.

Bangalore
13th March 1884

Executive Engineer,
Bangalore Division

Division during the past six months.

1494.

Executive Engineer
Bangalore Division

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is not the one justi
7 - where it is
rec date 8.4.84

To Dyke 1494.

Abstract of replies from Supdg Engrs to Ch. Engr's Circular No 567 C d/ 9th March 1883, relative to the extent to which the instructions contained in G.O. No. 2064 W d/ 12th Augt & 2488 W d/ 25th Sept 1882, for restricting the operations of the P. W. Workshops, have been carried out.

I Circle - This circle having extensive workshops of its own at Dowlaisheweram & no work having ~~heretofore~~ previously been done for it at Madras, no difficulties have been experienced in consequence of the change of arrangements at the Madras Workshops.

II Circle - Kistna & Nellore having workshops of their own have not been affected by the orders above quoted - Shutters & screw gearing have been extent of Rs 14,000 done at the Workshops as the Ex. Engr could not have arranged for this departmentally.

VI Circle – The Divisions in this Circle have had little occasion to order work, ~~either~~ since the issue of the orders referred to, either from the Workshops or private firms, but some small orders from the Madura Dn to the local Jail, & from the Tinnevelly Dn. to Messrs Oakes & Co & Massey & Co, were executed promptly & satisfactorily – The S.E. anticipates no difficulties in obtaining articles from private firms either at Madras Bombay or Calcutta, but he thinks difficulties may arise with regard to quality & price.

Consulting Architect – The dealings of this Dept with the P. W. Workshops have been too few to enable the C.A. to generalise the effects of closing the Shops.

The general tenor of the foregoing replies appear to show that sufficient time has not yet elapsed to enable officers to give full ~~satisfactory~~ conclusive answers to the questions put in Circular No 567 C, but meanwhile the points raised in Lieut Baddeley's letter No 2474 W of 2.2.83, attached to that Circular, remain undisposed of.

For Orders.

49 ~~50~~ Ca

27/4/83.

C/

C. Nos 2700, 3058, 3184, 2947, 2905, 3499 & 3041 — 1494.

Public Works Department.

No 1041 C of 31st May/83

Memorandum

In G. O. No 2064 W dated 12th August 1882 orders were issued to restrict the operations of the Presidency P. W. Work-Shops as far as possible, and in Circular No 5670 dated 9th March 1883 reports were called for from Superintending Engineers as to the extent to which those instructions had been carried out and the results of the restriction.

2. The general conclusion to be drawn from the various replies received is that the demands made on the workshops during 1882. 83 have been very limited and there is

a general Concensus of opinion that no difficulties will arise from the contemplated closure.

3. The fact that no tender worth Considering has been received for the buildings and plant admits of the changes being carried out slowly, and there is now no pressing necessity to deal with the question of the future location of the P.W. Stores and Instrument Dept, and of the provision of new buildings for them.

4. In view however to carrying the matter a step further towards final solution the General Superintendent is requested to submit, after careful consideration and inquiry, a definite

1494. Scheme for the organization and maintenance of a small workshop, for purposes purely departmental. He should furnish a list showing the names, pay, ages and occupations of the workmen whose retention he would recommend with similar ones of those to be dismissed or drafted elsewhere. The Establishment of the Instrument Department reduced as far as the present known requirements of the department admit should also be shown, as well as that required for the custody of the Public Works and State Railway Stores and for the maintenance in proper order

order of the Government Machinery stores - When these statements have been framed and submitted, the important question of Superintendence can be gone into

Cm

C.S.
29/5

No 805 C d/ 14-4-83
" 716 C d/ 30-3-83
" 567 C d/ 9-3-83
" 232 D d/ 1-2-83
Nos 250/257 C d/ 23-1-83
" 3329 W d/ 16-12-82
" 3188 W d/ 14-12-82
" 2489 W d/ 25-9-82
" 2488 W d/ do
" 2434 W d/ 19-9-82
" 2064 W d/ 12-8-82
C.E. No 220 d/ 26-1-82
G.O. 3081 W d/ 12-12-81

4.C
~~1924~~
4360 w 9.2.84

No 1041 C d/ 31-5-83

Sec
31/5

Genl. Supt P.W. W
S.E. Fifth Circle
Examr. P.W. accts

Jvs 31/5

List of works executed in the Instrument shop of the P.W. Workshop during the Year 1882-83.

1494

Description of work	Number	Cost		
To Electroplating Badge	1	2	"	"
" Manufacturing Rain Gauges Complete	6	49	14	"
" " Peons' Belts	2	8	12	"
" Repairing Telescope	1	4	1	"
" Manufacturing graduated brass oil measure	1	11	"	"
" Repairing garden hose for Chepauk park	1	4	11	"
" Manufacturing Brass Badges	12	30	"	"
" " Brass Seal with handle	1	5	"	"
" Repairing apparatus for decomposing water by Electrolysis	1	13	11	"
" Manufacturing Money weighing Scales with weights	4	49	8	"
" " graduated Tin oil measure	1	3	6	"
" Repairing Clock	1	1	8	"
" " Weighing Machine	1	28	3	"
" Examining and Marking Instruments for P.W. Store Depot		6	15	"
" " "		4	6	"
" " "		"	2	"
" " "		20	7	"
" " "		1	8	"
" " "		"	8	"

53
52

Description of Works	Number	Cost		
Brought Over				
To Repairing Dumpy levels ———	2	12	6	"
" Examining and Marking Instruments for P.W. Store Depts.		21	8	"
" ——— " ——— " ———		1	12	"
" ——— " ——— " ———		7	10	"
" ——— " ——— " ———		30	7	"
" ——— " ——— " ———		7	10	"
" Repairing Dumpy levels ———	9	309	"	"
" ——— " ——— Prismatic Compass ———	1			
" ——— " ——— Aneroid Barometers ———	2	6	4	"
" ——— " ——— Dumpy levels ———	2	20	11	"
" ——— " ——— Pris: Compass with Stand	1			
" ——— " ——— " ——— " ———	1	6	4	"
" Examining and Marking Instruments for P.W. Store Depts.		12	2	"
" ——— " ——— " ———		"	4	"
" ——— " ——— " ———		"	4	"
" ——— " ——— " ———		"	4	"
" Manufacturing brass union Locket ———	1	5	"	"
" ——— " ——— Gunter's Chain Galvanized	1	11	12	"
" Repairing Bicolar Machine Press	1	88	8	"
" ——— " ——— Theodolite with stand ———	1	8	15	"
" Fixing a new Spirit bubble to the Cross bar of a Theodolite ———	1	2	1	"
" Manufacturing Standard Measures of Sizes ——— Sets	13	61	4	"
" ——— " ——— Brass Badge ———	1	2	8	"
" ——— " ——— Rain Gauge Complete ———	1	8	5	"
" Repairing Scales ——— pair	1	11	1	"

Carried Over

Description of Works	Number	Cost		
Brought Over.				
To Manufacturing Brass Seals with handles bearing Crown	3	25	2	"
" ——— " ——— Brass Seals with handle	2	14	"	"
" Repairing Nolan's Range Finders	2	55	2	"
" ——— " ——— Tripod Stands ———	2			
" ——— " ——— Heliographs ———	4	17	12	"
" Manufacturing brass hand Stamps ———	5	30	6	"
" Engraving Mutiny Medal ———	1	"	8	"
" Repairing Clocks ———	2	35	8	"
" ——— " ——— Time pieces ———	5			
" ——— " ——— Nolan's & Watkins Range Finder	1	8	6	"
" ——— " ——— Roorkee pattern Heliographs with Stands ———	2	7	2	"
" Manufacturing Circular shaped punch to be struck with hammer.	1	2	8	"
" ——— " ——— Diamond shaped — do —	1	2	8	"
" Repairing American Clocks ———	2	8	8	"
" Manufacturing brass seal with handle	1	5	6	"
" ——— " ——— " ———	1	5	"	"
" ——— " ——— " ———	3	15	"	"
" ——— " ——— brass Badges ———	11	27	8	"
" ——— " ——— " ———	1	2	8	"
" ——— " ——— Countertamping presses with 4 annas Dies ———	4	314	11	"
" ——— " ——— brass Badges ———	15	125	"	"
" ——— " ——— Silver Badges ———	5	75	"	"
" ——— " ——— brass Seal with handle	1	8	6	"
" ——— " ——— " ———	1	5	"	"
" Repairing a Marine Telescope ———	1	15	11	"

Carried Over

Description of Works	Number	Cost
Brought Over		
To Manufacturing Brass letter weighing Scales with weights	1	30 8 "
" —— " —— Brass Seals for wax impression	6	
" —— " —— brass Seal with handle	1	5 " "
" —— " —— " ——	2	13 5 "
" —— " —— Silver Badges ——	3	44 15 "
" Repairing Magnetic Compasses ——	10	58 10 "
" Manufacturing brass Seal with handle	1	5 " "
" Engraving Mutiny Medal ——	1	" 8 "
" Manufacturing brass Seal with handle	1	5 " "
" —— " —— Flowered letter Crown Seal brass with handle	2	18 " "
" —— " —— Crown Seals brass ——	4	33 8 "
" —— " —— Brass Seal ——	1	5 " "
" —— " —— Treasury Seal brass ——	1	2 8 "
" —— " —— Brass Badge ——	1	2 8 "
" Altering Afghan Medal ——	1	1 14 "
" Repairing Aneroid Barometer ——	1	2 8 "
" Manufacturing Clamp Screw of Theo:-dolite Stand	1	8 15 "
" —— " —— Magnetic Compass	1	
" Repairing Theodolite with Stand ——	1	22 2 "
" Manufacturing letter weighing Scale with weights	1	13 " "
" —— " —— brass Seal with handle	1	6 " "
" —— " —— Flowered letter Crown Seal brass with handle	1	8 6 "
" —— " —— Brass Seal with moveable types & word "Cancelled"	1	15 " "
Carried Over		

Description of Works	Number	Cost
Brought Over		
To Manufacturing Steel Stamp with moveable types ——	1	20 4 "
" —— " —— Circular shaped punch mounted on Stand	1	6 4 "
" —— " —— Diamond shaped punch — do —	1	6 4 "
" —— " —— Brass Stamp with handle	1	9 " "
" —— " —— Brass Seal (old English letters)	1	10 8 "
" —— " —— " —— (bearing Crown)	2	16 12 "
" Repairing Gunters' Chain ——	1	1 8 "
" Manufacturing Steel Stamp with moveable types	1	17 " "
" —— " —— Gunters' Chains with arrows	5	58 12 "
" Electroplating Brass Badges ——	2	4 " "
" Repairing Microscope in Box ——	1	22 10 "
" Manufacturing electroplated Brass Badge with Royal arms	1	7 " "
" —— " —— Spare links for Chain ——	1000	143 14 "
" —— " —— Spare rings for Chain ——	2000	
" —— " —— Ebony Parallel Rulers 6" ——	29	
" —— " —— Brass Seal with handle ——	1	5 " "
" —— " —— Money weighing Scales of Sizes —— Pairs	2	28 1 "
" Repairing Dumpy Level ——	1	25 " "
" Manufacturing Rain Gauge Complete with 3 Spare 10 oz glass measures	1	18 4 "
" —— " —— Peons' Belts ——	4	27 9 "
" —— " —— Brass Badges ——	4	
" —— " —— Rain Gauge Complete	1	8 5 "
" —— " —— Steel Punches ——	8	10 6 "
" Repairing Pris: Compasses with Stand	12	118 14 "
Carried Over		

Description of Works	Number	Cost
Brought Over		
To Examining and Marking Instruments for P.W. Store Department		30 8 "
" Manufacturing Tracing Glass large	1	52 6 "
" Repairing Dumpy levels	8	272 15 "
" —— " —— Straight Edge brass 3'	1	
" Manufacturing brass Stencil plate marked "G. B"	1	" 13 "
" Repairing Hydraulic pressure Gauge	1	1 4 "
" Manufacturing Brass Audit Stamp with handle	1	23 7 "
" —— " —— Brass Defacement Stamp	1	
" Adjusting Theodolite	1	3 9 "
" Repairing levelling Instrument	1	10 9 "
" Examining and marking Instruments for P.W. Store Depᵗ		2 1 "
" Manufacturing Rain Gauge Complete	1	8 5 "
" Repairing Transit Theodolite with stand	1	28 2 "
" —— " —— " ——	1	12 12 "
" —— " —— " ——	1	6 2 "
" Altering Plane Table Rules	1	6 8 "
" Repairing Everest pattern Theodolite	1	36 11 "
" Manufacturing Brass Seal with handle	1	5 " "
" —— " —— " —— " ——	1	5 " "
" —— " —— " —— " ——	1	5 " "
" Soldering rings to Silver Royal arms	2	" 8 "
" Manufacturing Brass Stamp with moveable types	1	15 14 "
" Repairing Measuring Tape Metallic 100'	1	" 5 "
Carried Over		

Description of Works	Number	Cost
Brought Over		
To Engraving Mutiny Medal	1	" 8 "
" —— " ——	1	" 8 "
" Repairing Spirit Level	1	4 12 "
" —— " —— Watkins' Field Service Range Finder	1	6 " "
" Manufacturing Treasury Seal with handle	1	3 " "
" —— " —— Indices shewing 10, 20, 30 & 40	135	9 2 "
" —— " —— Spare links	50	
" Repairing ladder Scale with weights	1	17 1 "
" Manufacturing Treasury Seal	1	3 " "
" —— " —— Brass Seal with handle	1	5 " "
" —— " —— " ——	2	10 " "
" —— " —— Round punches mounted on stand	2	12 8 "
" —— " —— Diamond shaped punch Do	1	6 4 "
" —— " —— Circular shaped punches like piercers	2	18 12 "
" —— " —— Diamond shaped punches like piercers	2	
" —— " —— 33 feet Galvanized measuring chains with arrows	6	36 3 "
" —— " —— Brass Badge	1	2 8 "
" —— " —— Brass Seal with handle	1	5 " "
" Repairing Brass Parallel Rules 12"	1	4 4 "
" Examining and Marking Instruments for P.W. Store Department		2 3 "
" Repairing Letter weighing Scale with weights	1	5 3 "
Carried Over		

Description of Works	Number	Cost		
Brought Over				
To Examining and marking Instruments for P. W. Store Depts.		7	2	"
" ——— " ——— " ———		"	8	"
" ——— " ——— " ———		"	2	"
" ——— " ——— " ———		"	3	"
" ——— " ——— " ———		"	6	"
" ——— " ——— " ———		"	8	"
" ——— " ——— " ———		"	10	"
" ——— " ——— " ———		1	14	"
" Manufacturing Brass Stamp with handle for Stamping Bills	1	25	"	"
" ——— " ——— Brass Stencil plates ———	5	12	"	"
" ——— " ——— " ———	7	21	2	"
" ——— " ——— Zinc Dressing Basins 5 to a Set ——— Sets	10	28	14	"
" ——— " ——— " ——— " ——— " ———	10	28	14	"
" ——— " ——— Brass Dram Measures	1	4	4	"
" ——— " ——— Roorkee pattern Heliographs	10	1124	11	"
" ——— " ——— " ———	2	211	9	"
" ——— " ——— Letter weighing Scales with weights	5	70	"	"
" ——— " ——— Money weighing Scales to weigh Rupees 100	7	210	"	"
" ——— " ——— Opium Scale ———	1	48	"	"
" ——— " ——— Brass Badges ———	8	24	"	"
" ——— " ——— R and D Seals brass ———	2	3	8	"
" Repairing and Cleaning Mathematical Instrument Boxes of Sorts	54	335	8	"
" Manufacturing Brass Balance Scale	1	11	15	"
Carried Over				

Description of Works	Number	Cost		
Brought Over				
To Manufacturing Brass Scale with weights to weigh Rs. 100	1	38	14	"
" ——— " ——— " ——— Rs 500 with one 500 Rs brass weight	1	48	"	"
" ——— " ——— Money Weighing Scales of Sizes	6	81	"	"
" Repairing the following Instruments				
" ——— " ——— Pris: Compasses with stands	2	156	7	"
" ——— " ——— Levelling Instts. Troughtons' improved	2			
" ——— " ——— " ——— Dumpy 14" ———	1			
" ——— " ——— Mathl. Instts. Box 1st Class	1			
" ——— " ——— " ——— 2nd Class	1			
" ——— " ——— Rules parallel Ebony Sliding 18"	1			
" ——— " ——— " ——— " ——— 12"	1			
" ——— " ——— Staves levelling Telescopic	4			
" ——— " ——— Levelling Instrument ———	1	57	11	"
" ——— " ——— " ——— Staves Telescopic	2			
" Manufacturing Rain Gauge Complete with 3 Spare 10 ʒ glass measures	1	18	4	"
" Altering Office Revolving Stamp	1	4	8	"
" Manufacturing Brass Badges	18	54	"	"
" Repairing Silver Royal Arms	2	1	"	"
" ——— " ——— Everest Pattern Theodolite	1	1	4	"
" ——— " ——— " ——— with stand	1	12	12	"
" ——— " ——— Theodolite stand ———	1	2	2	"
" ——— " ——— Everest Pattern Theodolite	1	9	"	"
" ——— " ——— " ——— with stand	1	24	15	"
" ——— " ——— " ——— " ———	1	6	10	"
Carried Over				

Description of Work	Number	Cost
Brought Over		
To Repairing Everest Pattern Theodolite with Stand	1	22 3 "
" —— " —— " —— " ——	1	2 " "
" —— " —— " —— " ——	1	42 3 "
" —— " —— " —— " ——	1	42 6 "
" —— " —— " —— " ——	1	5 14 "
" —— " —— Air Pump ——	1	11 9 "
" Supplying a new bubble ——	1	1 8 "
" Manufacturing Rain Gauges Complete	6	49 14 "
" —— " —— " ——	6	49 14 "
" Engraving good Conduct Silver Medals	9	5 4 "
" Manufacturing Boring Rods —— Set	1	3 8 "
" —— " —— Electroplated Badge ——	1	5 " "
" Repairing an American clocks ——	3	12 " "
" Manufacturing Brass Badges ——	92	230 " "
" Engraving Silver Mutiny Medal ——	1	" 8 "
" Manufacturing letter weighing Scales with 3 Sets of Weights	3	42 " "
" —— " —— Treasury Seal ——	1	3 4 "
" —— " —— Brass Minimum weights	8	10 1 "
" —— " —— Rain Gauge Complete with one Spare 10 & glass measure	1	11 10 "
" —— " —— Brass Seals with handles	19	130 " "
" —— " —— Scales on Pedestals to weigh Rupees 120. Pair	1	30 " "
" —— " —— " —— Rupees 500. —— "	1	42 " "
" —— " —— Figure Punches ——	6	4 8 "
" —— " —— Scales on Pedestals with 10 weights	1	48 14 "
Carried Over		

Description of Work	Number	Cost
Brought Over		
To Repairing old pattern Scales on pedestals —— Pair	1	5 " "
" Manufacturing Treasury Seal ——	1	3 " "
" Examining and marking Instruments for P. W. Store Dept. ——		6 15 "
" —— " —— " ——		12 3 "
" Repairing Levelling Instruments Dumpy	1	17 " "
" —— " —— Tin Rain Gauge ——	1	
" —— " —— Straight Edge brass 3' ——	1	2 14 "
" —— " —— Staves levelling Telescopic ——	10	50 7 "
" Manufacturing Electroplated Brass Badge	1	5 " "
" —— " —— Silver Badge ——	1	14 14 "
" —— " —— Letter Wg: Scales with weights	7	148 12 "
" —— " —— Tracing glass ——	1	50 5 "
" Repairing the following Instruments:		
" —— " —— Barometer aneroid ——	1	221 11 "
" —— " —— Levelling Insts. Dumpy ——	2	
" —— " —— Cross Bubble Tube ——	1	
" —— " —— Levelling Insts. Dumpy 12" ——	1	
" —— " —— Mathl. Insts. Box 1st Class	1	
" —— " —— " —— " —— 3d Class	1	
" —— " —— Planimeter ——	1	
" —— " —— Protractor brass Semi Circular	1	
" —— " —— Rules parallel brass rolling 18"	2	
" —— " —— Staves levelling Telescopic	6	
" —— " —— Theodolite ——	1	
" —— " —— Compasses Prismatic ——	4	
Carried Over		

NP A

Description of Works	Number	Cost		
Brought Over				
To Examining and marking Instruments for P. W. Store Depts.		6	7	"
" —— " —— " ——		20	2	"
" Manufacturing Heliostats Begbie's pattern C in Case	12	1593	"	"
" Repairing Theodolite with Stand in box.	1	72	2	"
" —— " —— Pris: Compasses with Stand	3			
" —— " —— Plane Table with Stand	1			
" —— " —— Heliographs ——	2	36	4	"
" Manufacturing Heliostats Begbie's pattern C in Case ——	12	1593	"	"
" Repairing Pris: Compass with Stand	1	6	2	"
" Manufacturing Gunters' chains with arrows	200	1900	"	"
" Repairing Theodolite with Stand ——	1	21	8	"
" —— " —— " ——	1	12	15	"
" Manufacturing iron cross staff heads	100	200	"	"
" —— " —— Brass Badge ——	1	5	"	"
" —— " —— Brass Stamp with handle	1	35	4	"
" —— " —— Brass Seals —— " ——	2			
" —— " —— Brass Stamp —— " ——	1	25	"	"
" Engraving Silver Medals ——	1	"	8	"
" —— " —— " —— good Conduct Medals	2	1	5	"
" Manufacturing letter weighing scales with weights	2	28	"	"
" Repairing and Cleaning a Clock ——	1	42	4	"
" —— " —— Telescope with Stand	1			
" Manufacturing Straight Edge Steel 5"	1	24	13	"
" Repairing Perforating Press ——	1	10	14	"
" Manufacturing brass Seal bearing "Cancelled"	1	4	"	"
Carried Over				

Description of Works	Number	Cost		
Brought Over				
To Manufacturing Set of weights from 1 to 1/8 Viss.	1	124	12	"
" —— " —— " —— 2 to 1/16 Polums	1			
" —— " —— half Mercals ——	1			
" —— " —— Set of brass Measures 1 to 32	1			
" —— " —— " —— 1 to 1/4 Dram	1			
" —— " —— " —— 50 to 1/16 Pagoda	1			
" —— " —— Measuring Yard ——	1			
" —— " —— large letter weighing Scale	1			
" —— " —— Gold Smith Scale ——	1			
" —— " —— Small Scale ——	1			
" —— " —— Copper Scales —— pair	1	100	"	"
" —— " —— " —— Small —— " ——	1			
" —— " —— " —— Goldsmith —— " ——	1			
" —— " —— Set of measures from 1 to 1/4 Dram	1			
" —— " —— Brass measuring Yard ——	1			
" —— " —— Set of weights from 50 to 1/16 Pagodas.	1			
" —— " —— " —— 1 to 1/8 Viss	1			
" —— " —— " —— 2 to 1/16 Polums.	1			
" —— " —— Hammer large ——	1			
" —— " —— " —— Small ——	1			
" —— " —— Steel Punches ——	30			
" —— " —— Brass Seals with handle bearing Crown ——	2	16	12	"
" —— " —— 33' Galvd. measuring Chain ——	1	6	"	"
" —— " —— Brass Seals with handles	2	10	"	"
" —— " —— Brass weights from 1 to 100 tolas	10	19	10	"
" —— " —— Brass Stamp of Sorts with handle	80	371	5	"
Carried Over				

Description of Work	Number	Cost
Brought over		
To Repairing Evereat Pattern Theodolite with Stand	1	22 3 "
" —— " —— " —— " ——	1	2 " "
" —— " —— " —— " ——	1	42 3 "
" —— " —— " —— " ——	1	42 6 "
" —— " —— " —— " ——	1	5 14 "
" —— " —— Air Pump ——	1	11 9 "
" Supplying a new bubble ——	1	1 8 "
" Manufacturing Rain Gauges Complete	6	49 14 "
" —— " —— " —— " ——	6	49 14 "
" Engraving good Conduct Silver Medals	9	5 4 "
" Manufacturing Boring Rods —— Set	1	3 8 "
" —— " —— Electroplated Badge ——	1	5 " "
" Repairing an American clocks ——	3	12 " "
" Manufacturing Brass Badges ——	92	230 " "
" Engraving Silver Mutiny Medal ——	1	" 8 "
" Manufacturing letter weighing scales with 3 Sets of Weights	3	42 " "
" —— " —— Treasury Seal ——	1	3 4 "
" —— " —— Brass Minimum weights	8	10 1 "
" —— " —— Rain Gauge Complete with one Spare 10 Oz glass measure	1	11 10 "
" —— " —— Brass Seals with handles	19	130 " "
" —— " —— Scales on Pedestals to weigh Rupees 120. Pair	1	30 " "
" —— " —— " —— Rupees 500. —— " —	1	42 " "
" —— " —— Figure Punches ——	6	4 8 "
" —— " —— Scales on Pedestals with 10 weights	1	48 14 "
Carried Over		

Description of Works	Number	Cost
Brought Over		
To Repairing old pattern scales on pedestals —— Pair	1	5 " "
" Manufacturing Treasury Seal ——	1	3 " "
" Examining and Marking Instruments for P. W. Store Dept. ——		6 15 "
" —— " —— " ——		12 3 "
" Repairing Levelling Instruments Dumpy	1	17 " "
" —— " —— Tin Rain Gauge ——	1	
" —— " —— Straight Edge brass 3' ——	1	2 14 "
" —— " —— Staves levelling Telescopic ——	10	50 7 "
" Manufacturing Electroplated Brass Badge	1	5 " "
" —— " —— Silver Badge ——	1	14 14 "
" —— " —— Letter Wg: Scales with weights	7	148 12 "
" —— " —— Tracing glass ——	1	50 5 "
" Repairing the following Instruments:		
" —— " —— Barometer aneroid ——	1	221 11 "
" —— " —— Levelling Insts. Dumpy ——	2	
" —— " —— Cross Bubble Tube ——	1	
" —— " —— Levelling Insts. Dumpy 12" ——	1	
" —— " —— Mathl. Insts. Box 1st Class	1	
" —— " —— " —— " —— 3d Class	1	
" —— " —— Planimeter ——	1	
" —— " —— Protractor brass Semi Circular	1	
" —— " —— Rules parallel brass rolling 18"	2	
" —— " —— Staves levelling Telescopic	6	
" —— " —— Theodolite ——	1	
" —— " —— Compasses Prismatic ——	4	
Carried Over		

Description of Works	Number	Cost
Brought Over		
To Examining and marking Instruments for P. W. Store Dept.		6 7 "
" —— " —— " ——		20 2 "
" Manufacturing Heliostats Begbie's pattern C in Case	12	1593 " "
" Repairing Theodolite with stand in box.	1	72 2 "
" —— " —— Pris: Compasses with stand	3	
" —— " —— Plane Table with stand	1	
" —— " —— Heliographs	2	36 4 "
" Manufacturing Heliostats Begbie's pattern C in Case	12	1593 " "
" Repairing Pris: Compass with Stand	1	6 2 "
" Manufacturing Gunters' Chains with arrows	200	1900 " "
" Repairing Theodolite with Stand	1	21 8 "
" —— " —— " ——	1	12 15 "
" Manufacturing iron cross staff heads	100	200 " "
" —— " —— Brass Badge	1	5 " "
" —— " —— Brass stamp with handle	1	35 4 "
" —— " —— Brass Seals —— " ——	2	
" —— " —— Brass stamp —— " ——	1	25 " "
" Engraving Silver Medal	1	" 8 "
" —— " —— " —— good Conduct Medals	2	1 5 "
" Manufacturing letter weighing scales with weights	2	28 " "
" Repairing and Cleaning a Clock	1	42 4 "
" —— " —— Telescope with stand	1	
" Manufacturing Straight Edge Steel 5"	1	24 13 "
" Repairing Perforating Press	1	10 14 "
" Manufacturing brass Seal bearing "Cancelled"	1	4 " "
Carried Over		

Description of Works	Number	Cost
Brought Over		
To Manufacturing Set of weights from 1 to 1/8 Viss.	1	124 12 "
" —— " —— " —— 2 to 1/16 Pollums	1	
" —— " —— half Mercals	1	
" —— " —— Set of brass Measures 1 to 32	1	
" —— " —— " —— 1 to 1/4 Dram	1	
" —— " —— " —— 50 to 1/16 Pagodas	1	
" —— " —— Measuring yard	1	
" —— " —— large letter weighing Scale	1	
" —— " —— Gold Smith Scale	1	
" —— " —— Small Scale	1	
" —— " —— Copper Scales —— pair	1	100 " "
" —— " —— " —— Small —— " ——	1	
" —— " —— " —— Goldsmith —— " ——	1	
" —— " —— Set of measures from 1 to 1/4 Dram	1	
" —— " —— Brass measuring yard	1	
" —— " —— Set of weights from 50 to 1/16 Pagodas.	1	
" —— " —— " —— 1 to 1/8 Viss	1	
" —— " —— " —— 2 to 1/16 Pollums.	1	
" —— " —— Hammer large	1	
" —— " —— " —— Small	1	
" —— " —— Steel Punches	30	
" —— " —— Brass Seals with handle bearing Crown	2	16 12 "
" —— " —— 33' Galvd. measuring Chain	1	6 " "
" —— " —— Brass Seals with handles	2	10 " "
" —— " —— Brass weights from 1 to 100 tolas	10	19 10 "
" —— " —— Brass Stamp of Sorts with handle	80	371 5 "
Carried Over		

Description of Work	Number	Cost
Brought Over		
To Manufacturing Brass 1 Dram Measure	20	60 " "
" ——— " ——— " — 1/2 —— " ———	20	50 " "
" ——— " —— Pair of Scales with weights	1	17 " "
" ——— " ——— " — with minimum weights for weighing Rs.	3	51 " "
" ——— " ——— with weights from 1/4 to 50 tolas ——	1	23 " "
" Repairing Steam Gauge ———	1	9 11 "
" —— " —— Theodolite with Stand —	5	136 8 "
" Manufacturing letter weighing Scales with weights —— pair	1	12 8 "
" ——— " ——— Diamond shaped punch mounted on stand ——	1	6 4 "
" —— " —— Circular shaped punch mounted on Stand	1	6 4 "
" —— " —— Peons' Belts ———	4	31 " "
" —— " —— Brass Badges ———	4	
" —— " —— Brass Scales to weigh Rs 500	1	48 " "
" ——— " ——— " ——— Rs 200	1	35 " "
" ——— " ——— " ——— Rs 100	4	120 " "
" —— " —— Diamond shaped punch mounted on Stand ——	1	6 4 "
" Repairing levelling Instrument	1	11 13 "
" —— " —— Theodolite ———	1	5 4 "
" —— " —— Barometer aneroid ——	1	
" —— " —— Brass Almirah Locks —	15	7 " "
" Manufacturing Brass hand stamps with handles for stamping envelopes	20	115 " "
Carried Over		

Description of Works	Number	Cost
Brought Over		
To Manufacturing brass seal with handle	1	5 " "
" ——— " ——— " ——— " ——	1	5 " "
" Engraving good Conduct Silver Medal	1	" 12 "
" Manufacturing moveable types	3	4 " "
" Repairing Roorkee pattern Heliographs	1	19 7 "
" Manufacturing Offsets rods 10' long	4	9 " "
" Repairing the following Instruments		
Quadrant with Stand & Staff	1	37 " "
Barometers aneroid ——	5	
" Examining and Marking Instts. for P.W. Store Dept. ——		11 14 "
" ——— " ——— " ———		5 14 "
" ——— " ——— " ———		7 " "
" Repairing broken Die of Counterstamping press, Cutting letters deeper and Supplying 2 new year Plugs	1	34 13 "
" Renewing Brass dies from 4 to 2 annas	4	48 " "
" Repairing Pocket weighing Scale ——	1	3 10 "
" Manufacturing letter weighing Scales with weights	1	14 " "
" ——— " —— Stencil plates of block letters and figures ——	4	30 " "
" ——— " —— Date Seals brass ———	7	3 7 "
" ——— " ——— " ——— Steel with two Sets of moveable types	2	25 " "
" ——— " —— letter weighing Scales with weights —— pair	1	12 8 "
Carried Over		

NO. X'

Description of Works	Number	Cost		
Brought Over				
To Manufacturing Steel types of No. 4	1	1	"	"
" ——— " ——— " ——— No. 8	2	1	"	"
" Fixing bubbles to Spirit level of Theodolite	3	3	14	"
" Fitting New lens &ca for ——— Do ———	1	2	15	"
" Manufacturing Gunters' Chain with arrows	1	11	4	"
" ——— " ——— Silver Badges ———	3	44	11	"
" ——— " ——— Set of Dram measures of Sizes	14	77	"	"
" ——— " ——— One Dram measures ———	60	180	"	"
" ——— " ——— Brass Seal with handle	1	15	4	"
" ——— " ——— Brass badges with belts.	2	15	8	"
" ——— " ——— Letter weighing Scales with weights ——— pairs	1	14	1	"
" ——— " ——— Peon's Belt ———	1	5	4	"
" ——— " ——— " ———	2	10	8	"
" ——— " ——— Brass Badges ———	2	5	"	"
" ——— " ——— Tracing glass ———	1	52	10	"
" Repairing Barometer aneroid ———	1	38	8	"
" ——— " ——— Circumferenter with Telescope	1			
" ——— " ——— Compass brass 6" ———	1			
" ——— " ——— " ——— Pris: with stand	2			
" ——— " ——— Mathl. Insts. Box 3d Class ———	1			
" ——— " ——— Levelling Instrument ———	1	40	11	"
" ——— " ——— Staves Levelling Telescopic	4			
" ——— " ——— Pris: Compass with stand	1			
" ——— " ——— Mathl. Insts. 3d Class ———	1			
" ——— " ——— Letter weighing Scale with weights	1			
Carried Over				

1494.

Description of Works	Number	Cost		
Brought Over				
To Repairing Drawing Pens ———	6	6	"	"
" Manufacturing brass Drawing Pens ———	12	18	12	"
" ——— " ——— Rules parallel ebony 6" ———	2	3	4	"
" ——— " ——— Gunters Chains with arrows	50	537	8	"
" ——— " ——— Scales to weigh Rs 1000 ——— pair	9	720	"	"
" ——— " ——— " ——— Rs 100 ——— " ———	11	330	"	"
" ——— " ——— " ——— Rs 50 ——— " ———	11	220	"	"
" ——— " ——— Test Scales ———	9	108	"	"
" ——— " ——— Gunters' Chain with arrows	1	19	8	"
" Repairing Y Level with Stand ———	1	168	10	"
" ——— " ——— Dumpy levels with Stands ———	2			
" ——— " ——— Pris: Compasses ——— Do ———	2			
" ——— " ——— Iron Chain Measuring 100' ———	2			
" ——— " ——— " ——— 50' ———	3			
" ——— " ——— Barometer aneroid ———	1			
" Manufacturing Brass Badges ———	106	231	14	"
" ——— " ——— Brass Seals with handles	2	10	"	"
" ——— " ——— Year type for "1883" ———	1	"	3	"
" Repairing Parallel Ruler ———	1	2	"	"
" ——— " ——— Levelling Instrument with stand	2	19	7	"
" Examining and marking Instruments for P.W. Store Depts.		5	1	"
" ——— " ——— " ———		14	9	"
" Manufacturing Drawing Boards of Size	5	43	8	"
" ——— " ——— Letter weighing Scales with weights ———	1	12	8	"
" ——— " ——— Set Squares of Sizes ———	6	6	"	"
" Examining & marking Insts. for P.W. Store Depts.		20	4	"
Carried Over				

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Description of Works	Number	Cost
Brought Over		
To Repairing Levelling Instr. Dumpy 14" with Stand	1	59 9 "
" — " — " — 10"	1	
" Manufacturing Drawing Boards (Double Elephant)	6	62 14 "
" — " — Set Squares	4	
" — " — Paper weights	24	
" — " — Letter weighing Scales with weights	1	
" Figure type	1	" 2 "
" Examining and marking Instruments for P.W. Store Dept.		1 12 "
" — " — " —		3 8 "
" — " — " —		4 8 "
" — " — " —		4 15 "
" — " — " —		1 7 "
" — " — " —		3 8 "
" — " — " —		3 " "
" — " — " —		45 4 "
" Repairing letter weighing Scales with weights	1	7 11 "
" Altering the figure "1882" to "1883"	1	2 " "
" Repairing Perambulator	1	25 " "
" — " — " —	1	34 6 "
" — " — Theodolite with Stand	1	13 13 "
" — " — Spirit level	1	5 4 "
" Manufacturing iron Beds belonging to Bicolar Machine	3	4 5 "
" — " — Counterstamping Presses with Dies	2	200 " "
" — " — Boxes for — Do	2	6 " "
Carried over		

Description of Works	Number	Cost
Brought Over		
To Manufacturing pair of letter weighing scales with weights, with Teakwood Box	1	107 10 "
" — " — R and D Seals	2	
" — " — Brass Seals with handle	4	
" — " — Date stamp with a set of moveable types	1	
" — " — Brass Seal with handle	1	
" — " — Brass Seals with handle Bearing Crown	2	16 12 "
" — " — Cross planes	15	75 " "
" — " — Spring printing Machine	5	62 8 "
" — " — " — large	5	75 " "
" Repairing Microscopes	2	10 8 "
" — " — Plane tables with Stand	12	178 3 "
" — " — Pris: Compasses — Do	10	
" — " — Brass Compasses 6"	6	
" — " — Circumferenter with Stand	1	
" — " — Watkins Field Service Range Finder	1	5 " "
" — " — " — " —	1	10 " "
" — " — " — " —	1	7 " "
" — " — Heliograph mirror	1	2 8 "
" Adjusting Brass Scales on Pedestals	1	1 2 "
" Examining Brass Almirah Locks	28	13 " "
" Repairing Level	1	3 " "
" Manufacture of Imperial Gallon Measure	1	7 2 "
Carried Over		

Description of Works	Number	Cost
Brought Over		
To Manufacture of Circular and Diamond Shaped punches mounted on stand	2	12 8 „
„ ——— „ ——— Gunters Chains with arrows	1	11 12 „
„ ——— „ ——— Circular & Diamond Shaped punches mounted on stand	2	12 8 „
„ ——— „ ——— „ ———	4	25 „ „
„ ——— „ ——— „ ———	2	8 12 „
„ ——— „ ——— Brass Seal with handle	1	5 „ „
„ ——— „ ——— „ ———	3	15 „ „
„ ——— „ ——— Gunters Chains with arrows	7	79 12 „
„ ——— „ ——— 100' Galvd. Measg. Chain	1	
„ ——— „ ——— Brass Treasury Seal	1	2 8 „
„ ——— „ ——— ⅛" Gallon Measures	7	49 12 „
„ ——— „ ——— 1 Dram ——— „ ———	7	
„ ——— „ ——— ½ ——— „ ——— „ ———	7	
„ ——— „ ——— Rain Gauges Complete	4	33 4 „
„ ——— „ ——— Brass Badge	1	2 8 „
„ ——— „ ——— „ ———	2	6 „ „
„ ——— „ ——— Brass Year type "1883"	1	„ 8 „
„ ——— „ ——— „ ——— Stamp for Stamping Covers	21	106 „ „
„ ——— „ ——— Peons' Badges with Belts	5	34 6 „
„ ——— „ ——— Brass Badges with Royal arms	3	13 8 „
„ ——— „ ——— Brass Badges	14	35 „ „
„ ——— „ ——— „ ———	4	10 „ „
„ ——— „ ——— „ ——— Seal with handle	1	6 „ „
„ ——— „ ——— „ ——— Badge	1	2 8 „
„ ——— „ ——— „ ——— Seal with handle	1	6 „ „
„ ——— „ ——— „ ——— Badge	1	2 8 „
„ ——— „ ——— „ ——— Seals with handles	3	15 „ „
„ ——— „ ——— „ ——— Badge	3	7 8 „
Carried Over		

Description of Work	Number	Cost
Brought Over		
To Manufacturing Brass Seal with handle	1	5 „ „
„ ——— „ ——— „ ———	1	5 „ „
„ ——— „ ——— „ — tolah weights from ¼ to 8 tolas	5	3 8 „
„ ——— „ ——— „ — weights for Rs 50	1	3 8 „
„ ——— „ ——— Duffadars' Silver Badges	2	28 „ „
„ ——— „ ——— Naigues ——— „ ———	4	56 „ „
„ ——— „ ——— Duffadars' Belts with lace edging	2	32 „ „
„ ——— „ ——— Belts plain	4	20 „ „
„ ——— „ ——— Brass Badges	100	250 „ „
„ ——— „ ——— Peons' Belts	100	362 8 „
„ ——— „ ——— 100' Measuring chain Iron Galvanized	1	9 „ „
„ ——— „ ——— Brass Stamp with moveable types	1	15 „ „
Value of unfinished works in hand on 31st March 1882-83		5,438 1 9
Total		26,309 4 9

Presy. P.W. Workshops
Madras
1st December 1883

W C Baddeley, Lieutt. R.E.
Genl. Supdt. P.W. Workshops

Description of Works	Number	Cost
Brought Over		
To Manufacture of Circular and Diamond Shaped punches mounted on stand	2	12 8 "
" — " — Gunters Chains with arrows	1	11 12 "
" — " — Circular & Diamond Shaped punches mounted on stands	2	12 8 "
" — " — " —	4	25 " "
" — " — " —	2	8 12 "
" — " — Brass Seal with handle —	1	5 " "
" — " — " —	3	15 " "
" — " — Gunters' Chains with arrows	7	79 12 "
" — " — 100' Galvd. Measg. Chain —	1	
" — " — Brass Treasury Seal —	1	2 8 "
" — " — " — 1/8 Gallon Measures	7	49 12 "
" — " — " — 1 Dram — " —	7	
" — " — " — 1/2 — " — " —	7	
" — " — Rain Gauges Complete —	4	33 4 "
" — " — Brass Badge —	1	2 8 "
" — " — " —	2	6 " "
" — " — Brass Year type "1883" —	1	" 8 "
" — " — " — Stamp for Stamping Covers —	21	106 " "
" — " — Peons' Badges with Belts	5	34 6 "
" — " — Brass Badges with Royal arms —	3	13 8 "
" — " — Brass Badges —	14	35 " "
" — " — " —	4	10 " "
" — " — " — Seal with handle —	1	6 " "
" — " — " — Badge —	1	2 8 "
" — " — " — Seal with handle —	1	6 " "
" — " — " — Badge —	1	2 8 "
" — " — " — Seals with handles	3	15 " "
" — " — " — Badges —	3	7 8 "
Carried Over		

Description of Work	Number	Cost
Brought Over		
To Manufacturing Brass Seal with handle	1	5 " "
" — " — " —	1	5 " "
" — " — " — tolah weights from 1/4th to 8 tolas	5	3 8 "
" — " — " — Weights for Rs 50	1	3 8 "
" — " — Duffadar's Silver Badges	2	28 " "
" — " — Naigues — " —	4	56 " "
" — " — Duffadar's Belts with lace edging —	2	32 " "
" — " — Belts plain —	4	20 " "
" — " — Brass Badges —	100	250 " "
" — " — Peons' Belts —	100	362 8 "
" — " — 100' Measuring chain Iron Galvanized —	1	9 " "
" — " — Brass Stamp with moveable types —	1	15 " "
Value of unfinished works in hand on 31st March 1882-83 —		5438 1 9
Total		26,309 4 9

Presy. P.W. Workshops
Madras
1st December 1883

W C Baddeley, Lieutt. R. E.
Genl. Supdt. P.W. Workshops

List of workmen in the Instrument Department of the P. W. Workshop November 1883.

1494

Names	Rank	Rate	Remarks
Mr R. Clarke Supervisor 2nd Grade	Foreman	150 „ „	per mensem } Permane Establt
Vythealinga Aucharry	Engraver	30 „ „	— „ —
Mr Mc Kendry	Instt. Repairer	46 „ „	per mensem
Mr Rozario	do	45 „ „	— „ —
„ D. Vaz	do	40 „ „	— „ —
H. C. Taylor	do	35 „ „	— „ —
„ D'Cruiz	do	26 „ „	— „ —
„ F. Jordon	Apprentice	17 8 „	— „ —
„ G. Gaudoin	do	17 8 „	— „ —
„ A. Arnett	do	17 8 „	— „ —
„ G. Gleeson	do	15 „ „	— „ —
Margasagaya Aucharry	Maistry	46 „ „	— „ —
Soondra Aucharry	Instt. Repairer	35 „ „	— „ —
Soondra Mudaliar	Carpenter	25 „ „	— „ —
M. Mariya Dos	Die Cutter	20 „ „	— „ —
Manuel	Bronzer	10 „ „	— „ —
Arumuga Aucharry	Filer	„ 14 „	per day
Venckatrayaloo	— „ —	„ 13 „	— „ —
Appathoray	— „ —	„ 12 „	— „ —
T. Aroonachellum	— „ —	„ 11 „	— „ —
T. Mooneesawmy	— „ —	„ 10 „	— „ —
A. Mooneesawmy	— „ —	„ 8 „	— „ —
P. Poonoosawmy	— „ —	„ 8 „	— „ —
M. Poonoosawmy	— „ —	„ 7 „	— „ —
C. Soobrayaloo	— „ —	„ 7 „	— „ —

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Names	Rank	Rate	Remarks
Murugason	Filer	" 5 "	per day
Hopwood	" boy	" 3 "	— " —
C. Rajaruthanum	Diecutter	" 3 "	— " —
Singarum	do	" 3 "	— " —
Moonoosawmy	Cooly	" 4 6	— " —
M. Aurogiasawmy	Diecutter	" 12 "	— " — These men are working under Contractors
Chithumbalum	Filer	" 10 "	— " —
Appasawmy	"	" 12 "	— " —
V. Moonoosawmy	"	" 12 "	— " —
Valani	"	" 10 "	— " —
Ragavaloo	"	" 9 "	— " —
C. Govindoo	"	" 8 "	— " —
Valoo	"	" 8 "	— " —
R. Govindoo	"	" 8 "	— " —
Cundasawmy	"	" 8 "	— " —
Histnasawmy	"	" 7 "	— " —
M. Govindoo	"	" 7 "	— " —
Cotiah	"	" 6 "	— " —
Cooppen	" boy	" 4 "	— " —
Govinthan	"	" 4 "	— " —
Ethirajuloo	"	" 3 "	— " —
Pariayanum	"	" 3 "	— " —
Cundasawmy	"	" 3 "	— " —
Madurai	"	" 3 "	— " —
Murugason	"	" 2 "	— " —
Parthasarathy	"	" 2 "	— " —
Murugan	"	" 1 "	— " —

Presidency P. W. Workshop
Madras 1st December 83

Lieut R.E.
General Superintendent P. W. Workshop

Presidency Public Works Workshops,
Madras, 1st December 1883.

No. 1016 W.

1494

From
The GENERAL SUPERINTENDENT,
Public Works Workshops,

To
The Deputy Chief Engineer
Public Works Department
Chepauk

Enclosures.
2 Statements

Sir,

With reference to your No. 2310 C of 23rd November 1883, I have the honor to forward a statement of the work of the Instrument Department of the Public Works Workshop for 1882 – 1883 and a list of the workmen at present employed.

I have the honor to be
Sir,
Your most Obedt. Servant
Lieut. R.E.
Genl. Suptt. P. W. Workshops

72
65

1494

NPNI

Presidency P. W. Workshops.

— PW Ch 10729

From

THE GENERAL SUPERINTENDENT,
P. W. WORKSHOPS,
Madras.

To (11)

No. ______ W.

Dated
Despd. ______ 188
Recd. 3/12/83

No. of Enclosures. 2

Subject.

No RegA W2/16 6.82

84 R. 16/6/84

PRESIDENCY PUBLIC WORKS WORKSHOPS,
Madras, 4th April 1883.

No. 16 W.

1494

From
THE GENERAL SUPERINTENDENT,
PUBLIC WORKS WORKSHOPS,

To
THE Chief Engineer
D.P.W.
Madras.

SIR,

Enclosures.

With reference to your No 716 C of the 30th March 1883, I have the honor to report that it will be a great help to the Mathematical Instrument Department if Messrs Orr & Sons, can execute repairs efficiently at reasonable rates and without excessive delay.

2 I am now sending to Messrs Orr & Sons.

3 Theodolites 6" Nos 114-116 & 123 with stands, 6 Theodolites 5" Nos 170-~~466~~-524 546-598 & 546 598 & 685 with stands
4 - Y Levelling Instruments 20" Nos 324-364-400 & 403 with stands
4 - Y Levelling Instruments 14" Nos 185-745-772 & 779 with stands
Planimeters in cases (8).
Pantagraphs in Boxes - (9)
Clinometers (11)
Eidographs (5) in Boxes

67 ~~74~~

Prismatic compasses (9) in leather cases with stands, & 1 Dumpy Level 14" No 723 with stand all of which require ordinary repairs and adjustment and on the return of the Instruments I will submit a further report.

3 The Mathematical Instrument Department only possesses one ordinary small screw-cutting Lathe, and therefore it is impossible to comply with the request contained in the last para of Messrs Orr & Son's letter; but I would observe that the screws of ordinary Surveying and Mathematical Instruments are not cut in Lathes; so that as Messrs Orr & Sons Workshop must contain some of these Tools, the want of screw cutting Gear will not be felt in the work which they propose to undertake

I have the honor to be
Sir,
Your most obedt Servt
WA Buddelin Lt. R.E.
Genl Supdt. P.W. Workshops

1494

141

9582

1883.

Presidency Public Works Workshops,

Madras, 31st Octr 1883.

No. 867 M

OFFICE NOTE.

To

D.C.E.

The accompanying office notes on the subject of the establishment of the P.W. Workshops are forwarded for the information of the D.C.E.

A.C. Buddeley.

No 1149 G.O. of 16.6.8[illegible]

D.W. – File re submitted

[illegible]

10/11/83

1494

76

69

No 2154 D [illegible]
13th Oct /83

To Genl Supt P.W.W.

I think no action is necessary — the Establishment must be kept on on its present scale at any rate for some time longer. I understand there is a lot of work now in hand & that the staff is working over time. I have not yet had time to go into the difficult question of closing the shops, which indeed appears to me impossible just now, but will do so shortly. One thing is clear no ^better^ reductions can be effected just now.

CES.
11/10

17/10

DW.

R. No. 704
18.10.83.

Forwarded to the Exr PW Accts for perusal & return

17/10/83.

To No. 798 of 30th Octr /83.

The General Supt. P.W. Workshops.

Noted and returned. The orders of Government on this subject are necessary and will be awaited by this Office.

Examiner P.W. Accounts.

16/12/83 30/10 Q.8.5.84

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10 OCT 83
1883

Presidency Public Works Workshops.

Madras, 9th Octr 1883.

No. 804 W.

OFFICE NOTE.

To (11) D. C.E.

No. 1496 W of 16.6.83

The scale of establishment for the Workshops sanctioned in G.O. No 922 W of 21st March /83 was subject to revision six months after 1st April /83

The six months has expired and I wish to know if it is necessary for me to take any action in the matter; as the Examiner may raise objection to the Salary bill for October.

No orders have been received upon my letter No 632 W of 20th Aug /83 with which I forwarded a revised list of establishment.

7138

70

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(11)

Public Works Workshops.

	Present Establishment No.	Present Establishment Salary	Proposed Establishment No.	Proposed Establishment Salary
Upper Subordinate Establishment				
Sub Engineers	1	250	1	250
Supervisors	1	150	1	150
Overseers	1	80		—
	3	480	2	400
Petty Establishment				
Engraver	1	30	1	30
Gatekeeper	1	10	1	10
Attenders	2	20	2	20
Boys	2	8	2	8
	6	68	6	68
Office Establishment				
Clerks	9	289/8	5	220
Draftsmen	2	95	1	35
Peons	4	28	4	28
	15	412-8-"	10	283
Smiths. Shop				
Maistries	2	85-"-"	1	35
Smiths	15	9-12-" daily rates	—	— as required
Hammermen	20	6-9-"	—	—
Smiths boys	11	2-"-"	—	—
Turners & Filers Shop				
Maistries	4	135-"-"	2	60
Turners.	13	12-13-" daily rates	—	— as required
Machine men	11	4-8-"	—	—
Turners boys	9	1-14-"	—	—
Chuckler	1	"-6-"	—	—
" boy	1	"-2-"	—	—

77/0

Public ~~Works~~ Workshops (Continued)

	Present Scale			Proposed Scale		
	No.	Salary		No.	Salary	
Filers	23	14 – 14 – „	Daily rates	—	—	as required
Firemen	3	1 – 3 – „		1	7 – „ – „	(per mens
Filer boys	6	1 – 3 – „			—	as required
Carpenter's Shop						
Maistries	1	35 – „ – „		1	35 – „ – „	
Pattern makers	1	„ – 14 – „	Daily rates		—	as required.
Turners	1	„ – 12 – „			—	
Sawyers	1	„ – 12 – „			—	
Packers	1	„ – 11 – „			—	
Carpenters	18	9 – 8 – „			—	
—Do— boys	2	„ – 7 – „			—	
Foundry						
Maistries	1	35 – „ – „		1	35 – „ – „	
Moulders	12	6 – 8 – „	Daily rates		—	as required
Furnacemen	1	„ – 8 – „			—	
Chippers	2	„ – 14 – „			—	
Coolies	2	„ – 8 – „			—	
Foundry boys	8	1 – 3 – „			—	
Women Coolies	2	„ – 5 – „			—	
Instrument Department						
Maistries	1	45 – „ – „		1	45 – „ – „	
Repairers	5	190 – „ – „			—	as required.
Apprentices	4	70 – „ – „			—	
Carpenter	1	25 – „ – „			—	
Die cutter	1	20 – „ – „			—	
Bronzer	1	10 – „ – „			—	
Filers	11	7 – 1 – „	Daily rates		—	
—Do— boys	1	„ – 5 – „			—	
Die cutter boys	2	„ – 6 – „			—	
Coolies	1	„ – 4 – 6			—	

Public Works Workshops (Continued)

	Present Scale			Proposed Scale		
	No.	Salary		No.	Salary	
General Department						
Markers	1	15 – „ – „		1	15 – „ – „	
Moochee	1	„ – 6 – „	Daily rates	1	„ – 6 – „	Daily rates
Painters	2	„ – 12 – „		1	„ – 6 – „	
Head Cooly	1	12 – „ – „		1	12 – „ – „	
Coolies	20	5 – 1 – „		—	—	as required
Scavenger	1	6 – 8 – „			6 – 8 – „	
General Hospital Punkah Works						
Engine Drivers	2	80 – „ – „		2	90 – „ – „	
Firemen	3	1 – 8 – „	Daily rates	3	1 – 8 – „	Daily rates
Coolies	10	2 – 9 – „		10	3 – 3 –	
Guindy Water Works						
Engine Driver	1	20 – „ – „		1	20 – „ – „	
Fireman	1	7 – „ – „		1	7 – „ – „	

Public Works Stores

Office Establishment

	No.	Salary	No.	Salary
Accountant	1.	65 – „ – „	1	65 – „ – „
Clerks	4	332 – „ – „	4	332 – „ – „
Duffadar	1	9 – „ – „	1	9 – „ – „
Peons	4	27 – 8 – „	4	27 – 8 – „
	10	433 – 8 – „	10	433 – 8 – „
Temporary Establishment				
Clerks	1	40 – „ – „	—	—
Petty Establishment				
Lascars	12	72 – „ – „	12	72 – „ – „

Public Works Stores (continued)

	Present Scale		Proposed Scale	
	No	Salary	No	Salary
Contingent Establishment				
Maistry	1	35 - " - "	1	35 - " - "
Beach Conicopillay	1	25 - " - "	1	25 - " - "
Syrang	1	25 - " - "	1	25 - " - "
Carpenter	1	25 - " - "	1	25 - " - "
Fitter	1	15 - " - "	1	15 - " - "
Marker	1	12 - " - "	1	12 - " - "
Moochee	1	10 - " - "	1	10 - " - "
Sweeper	1	6 - 8 - "	1	6 - 8 - "
	8	153 - 8 - "	8	153 - 8 - "
Government Machinery Stores				
Clerk	1	50 - " - "	1	50 - " - "
Fitter	1	20 - " - "	1	20 - " - "
Lascars	6	42 - " - "	6	42 - " - "
	8	112 - " - "	8	112 - " - "
State Railway Stores				
	Nil		Nil	

(No Separate Establishment)

Revised List of proposed permanent Establishment of Presidency P. W. Workshop.

Names	Rank	Salary	Remarks
Upper Subordinate Establishment			
Mr. S. Francis Sub Engr. 3rd Grade	Foreman	250 " "	
Mr. R. Clarke Supervisor 2nd Grade	"	150 " "	
Petty Establishment			
Vythealinga Acharry	Engraver	30 " "	
Mr. P. Murphy	Gatekeeper	10 " "	
2. Attenders at 10 Rs each		20 " "	
2. Boys at 4 Rs each		8 " "	
Office Establishment			
P. Cothundasawmy Pillay	Clerk 3rd Class 2nd Grade	70 " "	
C. Kistnasawmy Mudaliar	" 3rd Class 3rd "	60 " "	
M. Ruthna Mudaliar	" 4th " 1st "	50 " "	
C. Rajaruthna Pillay	" 4th " 3rd "	20 " "	
Mr. P. Webb	" 5th " 1st "	20 " "	
S. V. Manicka Pillay	Draftsman 2nd Class	35 " "	
4 Peons 7 Rs each		28 " "	

P. W. Workshops
Madras
20th Augt./83
Despd. 20 –

W. W. Biddell
Lieut. R. E.
Genl. Suptt. P. W. Workshop

5th March 1884

1494

Statement shewing receipts and issues of Stores and Consignments received from London &c for P. W. Stores and State Railways

	Stores received and issued on account of P.W.D.				Consignments received from England and Bombay on account of						
Year	Receipts		Issues		P.W.D.	Mysore State Railway	Southern Mahratta Railway	Eastern Deccan Railway	Nizam's State Railway	Total	Remarks
	Rs	A. P.	Rs	A. P.							
1880-81	40,588	" "	48,314	" "	8	38	"	"	2	48	The value of the consignments received up to date for State Railways, cannot be precisely stated, but it amounts to several hundred thousand pounds.
1881-82	1,66,770	" "	88,913	" "	11	36	6	"	"	53	
1882-83	50,037	" "	87,456	" "	14	27	16	2	4	63.	

P. W. Workshops
Madras
20th Augt 1883
Despt 20

Lieut R.E.
Genl Supdt P. W. Stores &c.

Read the following papers

Madras. 5th May. 1884.

No. 14

1494 p1

From

Colℓ. H. L. Prendergast. R.E.
President of Committee
P. W. Workshops & Stores

To

The Chief Engineer
P. W. D.

16th Com No. 1494 M 7th

Enclosures.
1 Committee's Report.
1 File of papers.

Sir

I have the honor to forward the report of the Committee appointed in G. O. No. 360 W of the 9th February 1884, to investigate questions respecting the P. W. Workshops & Stores.

The papers sent with the Government Order are returned.

I have the honor to be
Sir
Your Most Obedt. Servant
H. L. Prendergast Colℓ. R.E.

73A

President of Committee
P. W. Workshops & Stores

Read the following papers

Madras. 5th May. 1884.

No. 14

1494 41

16th Ch. Engr. No. 1634 W. 7th
[illegible]

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President of Committee
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H. L. Prendergast Coll. R.E.

73A

President of Committee
P. W. Workshops & Stores

Ootacamund, May 15th 1884

No 17/19

To
E.S.

For any remarks which he may desire to offer.

W
14-5-84
W.

360 W 9.2.84 (A)
3183 W 4.12.82 (A
2995-6 W 13.11.82 (B)
2489 W
2488) 24.9.82 (A
628 E. 24.8.82
3081 W 12.12.81 (A)
915 W 4.4.81 (A

D.P.S. 26/145. Cir 30/5.

To

The Chief Engineer
P.W.D.

Dated 5th } May 1884
Recd }

No: 1494 W 16-5-84)

No. 14

P.W. Workshops and Stores — Forwarding the report regarding the

To

Endorsmt 1494 S/p 2

Proceedings of the Committee appointed in G.O. No. 360 W dated 9th February 1884, to report on the P.W. Workshops and Stores.

The effects of the restrictive Orders No. 2488 W dated 25th September 1882, have been, that the Value of the out turn of work has decreased, thus.

in 1879-80 ________ Rs 2,16,876
— 1880-81 ________ " 2,08,889
— 1881-82 ________ " 1,44,221
— 1882-83 ________ " 1,39,937
— 1883-84 (estimated) " 1,00,000.

In the last two years, the extra charges have been
in 1882-83 — 38 per cent on the actual out turn
in 1883-84 45 per cent.

The percentages of Financial and general liabilities, on the Capital have been 17.2 and 20.4 in

924

in the 2 years: and against these, the percentages of extra charges on the Capital have been 16.1 and 17.4.

The loss in these years has been 2,928 Rupees and 5,278 Rs.

The loss in the three preceding years was Rs 6,833, Rs 22,160 and Rs 18,201.

2 The Superintending Engineer of the 1st Circle writes that the Department has not availed itself of outside agency because there are extensive Workshops at Dowlaishweram.

The Superintending Engineer of the 2nd Circle says he gets all work done at the Bezwada Workshops except castings and repair of scientific instruments, or any exceptionally heavy work, otherwise they are independent of

the Madras Workshops.

1494

The Superintending Engineer of the 3rd Circle states, that the requirements have been but few, and there has been little necessity for resorting to private agency.

The Executive Engineer of Bellary speaks unfavorably of some small force-pumps purchased from Messrs Massey & Co., as not turned out in a workmanlike manner, and useless as force pumps.

The Executive Engineer of Bellary proposes to obtain iron work of any special nature from Bombay, although the rates may prove somewhat high.

From the 4th Circle, the Executive Engineer Nilgiri Division, sends two lists showing that Stores to the value of Rs 4683 were obtained from

25 10

May

May to December 1883, from Messrs Richardson and Cruddas, Bombay; and that Stores to the Value of Rs 7900 were obtained from the P. W. Workshops from September 1882 to February 1884. The Executive Engineer remarks, that no comparison of quality can be made between the two lists; and that articles when available at Madras, can be procured much quicker than from Bombay.

The Executive Engineer of the Coimbatore Division sends a Statement showing that iron work to the Value of Rupees 1645 has been obtained from private Agency, since September 1882; and another Statement showing the cost of work done previously at the P. W. Workshops. The Executive Engineer says that as regards time of execution and cost

8/p 6

14914

cost of work, there is very little to choose between the private firms, and the Workshops; but in the quality of the work, he is inclined to give the preference to the P. W. Workshops, as the work is generally of a more substantial character.

The Committee observe, that for iron work for Screw gear Shutters, Messrs Massey and Co have charged 4¼, 5¼, and 7¼ annas per lb: tho' explanation has been asked for by the Executive Engineer regarding this latter rate. The rate for similar work at the P. W. Workshops, has been from 4 as 2 P to 5 annas 11 Pies.

In the 5th Circle, the Executive Engineer of the Buckingham Canal, has given orders to the Cowlaishweram Workshops not to local firms.

The Executive Engineer

#26

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The Executive Engineer

Engineer of the Presidency Division has abstained from applying to the P. W. Workshops, for any thing procurable in the market, believing that the Workshops prices are prohibitive. He generally gets tools and plant from the Workshops, and had a cooking range set up at the General Hospital thro' the P. W. Workshops, not being able to spare any one to superintend the work.

The Executive Engineer of South Arcot has given only one order, to Messrs Massey and Co, except for petty work; and in this case the charge was Rs. 310 for each shutter with screw gearing: while the Estimate of the P. W. Workshops was Rs 250 Thus Messrs Massey added 24 per cent to the Workshops price.

The Superintending Engineer of the 6th Circle agrees with

with

with the Executive Engineer, that Messrs Massey & Co execute work fairly and expeditiously; but that their charges are excessive. Messrs Massey tendered for corrugated iron roofing for the Madura District, but the supply was obtained from Bombay at a considerable saving.

The Executive Engineer of Tanjore (on the Committee) considers that all sorts of work of a simple description can be done cheaper by outside Agency; but when Machinery and highly skilled labor have to be employed, the rates at the P. W. Workshops are much lower than elsewhere.

For the Tanjore Jail, barred doors are being made up, locally, at a cheap rate. The iron might be somewhat better at the P. W. Workshops; but the price would be higher, and the workmanship not better.

A lightning Conductor has been supplied by Messrs. Massey, for a Powder Magazine at Tanjore; the Executive Engineer would expect to have the work done cheaper and better at the P. W. Workshops.

The Executive Engineer has found that the cost of wood work at Dowlaishweram is much less than at the P. W. Workshop but that the rate for iron work is much the same. Messrs. Massey and Co. tendered last August, for Shutters for the Nattar head works; and their rate for iron work was 5 as. 9 P. per lb. against 3 as. 7 P. charged at Dowlaishweram.

The Executive Engineer thinks it may be assumed, that for work of this class nearly 50 per cent will have to be added to former prices, if the Workshops be closed.

The

The Executive Engineer of Tinnevelly reports, that Messrs. Massey have turned out good work, fairly expeditiously, but that he gave up sending them orders, on account of their high prices. For the Screw gearing for Shutters, they asked 5½ annas for iron work, while the P. W. Workshops supply the same for 3½ annas per lb.

The Executive Engineer of Negapatam, writes, that so little iron work has been done, that no comparison can be made as to cost. But in regard to time, the cheapness of local labor hardly compensates for the delay; especially if the loss of time be taken to account in personally overlooking the most simple details, where there is no Workshop or trained supervision

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13 28th

The Engineer of the Madras Harbour Works states that he has no means of comparing the work done at the P.W. Workshops with that executed by private Agency, because all his mechanical work is done, either on the spot or at the P.W. Workshops.

The Consulting Architect observes that the work done by the P.W. Workshop, is almost always better than that done by private firms; and on the whole the price is much the same. On one occasion, lately iron girders made by Messrs. Massey and Co. failed when tested. Wood work from the P.W. Workshop is better than from elsewhere, and the price about the same.

3. The Committee have

~~3. The Committee~~ have enquired of the heads of the principal Government Departments, whether inconvenience would be felt by the closing of the P.W. Workshops 1494

The Revenue Board say in reply, that so far as the demands of the Revenue Department are concerned, it is perfectly immaterial, whether the P.W. Workshops are closed or not.

The Commissary General writes that the restriction has not inconvenienced his Department: that supplies can be got more expeditiously and cheaply by private agency, than by the P.W. Workshops.

The Inspector General of Ordnance, and the Inspector General of Police, write, to the same effect.

The Master Attendant, however, considers that the Marine Department

Department derived advantage from the P. W. Workshops, and ought to be able to get work done there, if only to check a disposition to exorbitancy on the part of private firms.

4. The Superintendent of the Madras Survey states, that he is unable to compare the work and charges of Messrs P. Orr and Sons in repairing instruments, with the repairs which have been well done by the P.W. Workshops. He is of opinion, that it would be very advantageous to maintain the Government Workshop Establishment, inasmuch as the Surveyor General cannot undertake the repairs, and it would be tedious and costly to send instruments to England.

England

5. The General Superintendent of the P.W. Workshops sends a Statement showing that 11 orders from State Railways have been carried out from April 1882 to February 1884. He states that, when the Mysore Railway was under construction, articles received from England were frequently damaged, and it was important that the Workshops could execute repairs. He considers that when the State Railways have established their own Workshops, they will often require repairs to be done at the Presidency.

On the other hand the Superintending Engineer of the Bellary Kistna State Railway says that the

8045 Presidency

Presidency Shops would probably not be of use; and the Engineer in Chief of the Cuddapah Nellore State Railway does not anticipate being able to utilize the P. W. Workshops at Madras, to any appreciable extent, except for the repairs of Surveying instruments.

6. From the evidence given, the Committee find that for State Railways, and for Government Departments generally, other than that of Public Works, there is no need of maintaining the P. W. Workshops. But for the P. W. Department the Majority of the Committee, (four members) are of opinion, that the Workshops should be reestablished on their former footing; because work is likely to be done better, and at not higher prices, than it would be, if undertaken by outside agency.

7 1494 Offers have been made in a general way by Mr. Wallace dated 3d March 1884, and by Messrs. Massey and Co. dated 8 April 1884 to undertake the work hitherto done by the P. W. Workshops. Upon the decision arrived at, above, the Committee do not recommend that either of these offers be entertained.

8. The Committee are of opinion that the Mathematical Instrument Department should be maintained; and that it is not advisable to limit its operations by attempting to get the work done by private Agency.

9. The Committee consider that the appointment of General Superintendent of the P. W. Workshops should not be of the Special nature, that it has been hitherto; but that the

Workshops with its kindred branches, Stores &c should be treated as a Public Works Division and its Staff regulated accordingly.

Alexr. Prendergast
Colonel. R.E.

W. H. Hughes. S. Engr.

J. C. Gordon

C. Owen
Major R.E.

5th May 1884

R. Drake-Brockman
Engr.

N. [illegible] 388

A

No: 1494W

Public Works Department.

1494

~~[illegible]~~

Genl. Sect.

Proceedings of the Madras Government,

Under date the, 16th June 1884

Read the following:—

Print with one Despatch.

From the President of the Committee appointed to report on the P.W. Workshops and Stores } H.E. No. 44 dated May 5, 1884.

10

In G.O. No. 360 W dated 9th February 1884, the recent papers bearing on the position and operations of the Public Works Workshops and Stores at Madras were reviewed at length, and a Committee was appointed to consider the effect of the restrictive order dated 25th September 1882 No. 2488 W, and to report upon the status to be assigned

82

in future to the shops, as well as to the Stores, with which the shops are intimately connected. After careful consideration of the papers and of all available evidence, the Committee have arrived at the conclusion that, so far as the P. W. Dept is concerned, the shops should be re-established on their former footing inasmuch as work is likely to be done better, and at prices not higher than if undertaken by private agency.

As regards the execution of work for State Railways and for Government departments generally, the evidence goes to show that the

14997

P. W. Workshops are not essential.

The retention of the Mathematical Instruments shops for the execution of all Govt work is recommended; and it is finally recommended that the Workshops and Stores should in future be constituted an ordinary Public Works Division, the staff being regulated accordingly.

2. After careful consideration of the papers, H. E. the Govr in Council is not satisfied that the experiment of restricting the operations of the Workshops has lasted sufficiently long to allow of healthy private competition. It should therefore be continued for the present. Meanwhile

8318

inquiry will be made, through the Military Dept., whether the Gun Carriage Factory is in a position to undertake the more important work of the Department such as cannot apparently be properly and economically executed in the local market

M.
12-6-84

1B/11

~~Hon. H. E. Sullivan~~

M.
14-6-84

M.
16/6

Supdg. Engr. V Circle.
Other Supdg. Engineers.
Genl. Supdt. P.W. Stores & Workshops.
Chief Engr. for Irrign.
Consg. Engr. for Railways
Engineers-in-Chief, State Railways
Consg. Architect to Govt.
Supdt. M.H. Works.
Examiner P.W. Accounts
Financial & Ra. depts.
Revenue Dept.
Military Dept.

23/6

P.W.L. 2615 Cir 12/6.

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Govt. of (1884) Madr

PUBLIC WORKS.

857

17/6/84

Dated

Recd.

Encl.

G.O., 16th June 1884. No. 14

Pr[illegible]. P.W. Works & Stores

Passing orders on the report of the Com appointed to consid effect of the order restricting the opera of the ___ & the Status to be ass to them in futur

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(3) Initials of the Referencer

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