Govt. of [1885] Madras.

REVENUE.

6 OCT 85

Issued

Recd. 9/10/85 Encl.

G.O., 11th September 1885, No. 1016.

SEPTEMBER.

Government Cinchona Plantations.

Report on the — for 1884-85, reviewed.

Dck 8820

Govt. of {1885} Madras.

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Government Cinchona Plantations.

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No. 2388 Wdy. 13th October 1885

Cond to the S.E IV
Circle for information

7-10-85

S.E IV Circle
Ootacamund
Ss Nilgiri Deputy
Asst. 20/10. 21/10 13/10/85.

No. II.—STATEMENT showing the receipts and charges on account of the Government Cinchona Plantations, Nilgiris, for 1884-85 calculated in accordance with orders of the Secretary of State (*vide* G.O., No. 1163, dated 23rd October 1882).

	Rs.	A.	P.		Rs.	A.	P.
To value of stock on 31st March 1884 of 92,526 lb., at 8 annas 2·402 pies per pound	47,420	8	7	By value of stock on 31st March 1885 of 1,225,663 lb., at 11 annas 6·646 pies per pound...	90,743	1	4
To establishment and working	85,221	14	8	By value of 25,681 lb. of bark at cost price awaiting disposal in England ...	18,544	10	0
Profit on the year's working.	62,474	7	6	By value of 2,000 lb. of bark supplied to Dr. Cleaver ...	933	12	0
				By value of 81,880 lb. of bark sold locally	82,344	2	0
				By value of 1,000 lb. of bark supplied to Bombay Medical Department ...	1,007	8	0
				By sale-proceeds of seed ...	1,033	2	0
				By miscellaneous receipts ...	510	11	5
Total ...	1,95,116	14	9	Total ...	1,95,116	14	9

In 1884-85 the cost price of 1 lb. of bark is 11 annas 6·646 pies per pound, *i.e.*, Rs. 85,221-14-8, expenditure ÷ 118,017 lb. of bark, the crop of the year.

Exd. W. J. Lewis.

150 Copies

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To establishment and working	85,221	14	8	By value of 25,681 lb. of bark at cost price awaiting disposal in England ...	18,544	10	0
Profit on the year's working.	62,474	7	6	By value of 2,000 lb. of bark supplied to Dr. Cleaver ...	933	12	0
				By value of 81,880 lb. of bark sold locally	82,344	2	0
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16. *Quinology.*—The Government note with pleasure the very useful work done since his arrival in this country by Mr. Hooper. His report shows that a satisfactory start has been made in the scientific investigation of cinchona culture and of the conditions which affect its alkaloidal value. During the year under report, however, his attention has been largely devoted to the practical question of manufacturing at a minimum of cost the liquid extract of cinchona devised by Dr. de Vrij of the Hague. A sample of this preparation manufactured under Mr. Hooper's directions has been tested in some of the hospitals with the most satisfactory results, and instructions have been issued for the preparation of 1,000 lb. of the extract in view to further trials. It has been found experimentally that the liquid extract can be produced at a price about 30 per cent. lower than that of the febrifuge obtained from Bengal, and there appear to be good reasons for believing that eventually the cost will be found to be still lower. In view, partly, of this fact, the question of establishing agencies under the Local Fund Boards for the distribution of cheap medicines to the poorer classes has been referred to those Boards for consideration.

17. *Receipts and Expenditure.*—The receipts of the year amounted to Rs. 84,895-7-5 as detailed on the margin against a revised estimate of Rs. 45,900. The bulk of the increase is due partly to the sale of a larger quantity of bark than was anticipated, partly to the inclusion in the lots sold of a larger proportion of crown bark than was at first intended, and partly to a slight recovery in prices. It was expected that some 600 bales would be sold for an average price of Rs. 75 per bale, but eventually 819 bales were disposed of for a fraction over 100 rupees each.

	Rs.	A.	P.
Value of bark sold locally ...	82,344	2	0
Value of bark supplied to Bombay Medical Department...	1,007	8	0
Sale-proceeds of seed, &c. ...	1,033	2	0
Miscellaneous	510	11	5
Total ...	84,895	7	5

18. The expenditure, as reported by the Director, was Rs. 87,903-4-10 against a budget estimate of Rs. 83,800 and a revised estimate of Rs. 91,240. This includes a sum of Rs. 2,681-6-2 adjusted during the year and representing the cost of manufacture of the 393 lb. of febrifuge advised in the Secretary of State's despatch recorded in G.O., No. 705, dated 4th June 1884. Of this amount, however, a sum of Rs. 101-11-1, representing the three latter items noted on the margin, has already been deducted from the receipts of 1883-84 in taking credit for the net value of the 393 lb. of febrifuge. The balance, viz., Rs. 2,579-11-1, should have been deducted at the same time, but was by an oversight omitted from the calculation. The deduction will now be made and the receipts of 1883-84 will then stand at Rs. 85,080-13-2. The charges for the year under report will consequently be reduced by the whole amount, viz., Rs. 2,681-6-2. To the figure thus arrived at must be added the charges (Rs. 1,602-7-8) incurred by the Public Works Department in the construction and repair of cinchona buildings. The whole charges for 1884-85 will thus amount to Rs. 86,824-6-4.

	£.	s.	d.
393 lb. febrifuge at 8*d.* per oz. ...	209	12	0
Packing	4	18	3
Analysis	3	3	0
Labels	0	4	0
Total ...	217	17	3

Equivalent at 1*s.* 7½*d.* per rupee. Rs. 2,681-6-2

19. The tabular statements which accompany the Director's report have been remodelled as directed in G.O., 17th September 1884, No. 1050. It is observed, however, that statement III still shows the expenditure of the head office for each *month* of the year. This is not necessary, a statement of annual charges being alone required, which should be compared with the budget and revised estimates. The Director is requested to report whether it would not be possible in future years to prepare statements, similar to those furnished in connection with the Bengal plantations, showing the number and distribution of the different varieties of plants on the several estates. A comparative statement should, also, be furnished showing the quantity of bark *of the different kinds* in store at the commencement of the year, collected and disposed of during the year, and remaining in store at its close.

20. The statement of capital and revenue account appended shows the financial results of the cinchona enterprise from its commencement to the end of 1884-85. The net result is a surplus of Rs. 5,51,743-4-7. In future the exact amount and value of bark supplied to the Government Quinologist should be reported for inclusion in this statement. A statement is also appended showing the receipts and charges of the year calculated in the manner directed in the Secretary of State's despatch, dated 14th September 1882, No. 31.

(True Extract.)

Ag. Secretary to Government.

To the Director, Government Cinchona Plantations,
Parks and Gardens, Nílgiris, with file of papers on ensilage.
,, Director of Revenue Settlement and Agriculture.
,, Board of Revenue.
,, Accountant-General.
,, Public Works Department.
,, Financial Department.
,, Military Department.
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,, Superintendent, Government Central Museum.
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" Surgeon-General with the Government of Madras.
" Superintendent, Government Central Museum.
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No. 8.

A.—STATEMENT showing the Total Yield of the Government Cinchona Plantations, Nílgiris, for the Official Year 1884-85.

1	2	3 Bark.														4	5 Propagation.		
		a Under-stripping and Mossing system.			b Uprooting.			c Coppicing.			d Scraping.			Total quantity of Green Bark collected during the Year.	Quantity when dry.	Seed.	a Plants.	b Seedlings.	c Rooted cuttings.
Name of Plantation.	Species of Produce.	No. of Plots.	No. of Trees decorticated.	Outturn of Green Bark.	No. of Plots.	No. of Trees decorticated.	Outturn of Green Bark.	No. of Plots.	No. of Trees decorticated.	Outturn of Green Bark.	No. of Plots.	No. of Trees decorticated.	Outturn of Green Bark.						
				LB.			LB.			LB.			LB.			LB.	NO.	NO.	NO.
Dodabetta	Cinchona Bark	7	27,056	78,366	3	200	2,111	8	5,618	51,725	3	2,042	3,750	135,952	58,803	116$\frac{5}{32}$	240,500	400,000	..
Naduvatam ..	Do.	1	50	246	3	5,052	41,947	4	1,837	28,365	3	9,253	40,858	111,416	38,700	217	194,719	32,500	6,500
Hooker	Do.	..	..	..	2	2,685	33,258	..	..	..	..	..	..	33,258	8,800	..	523,000	121,800	..
Wood	Do.	..	..	..	1	1,222	14,704	4	1,410	15,548	..	..	..	30,252	11,714	..	99,823	..	..
	Total ..	8	27,106	78,612	9	9,159	92,020	16	8,865	95,638	6	11,255	44,608	310,878	118,017	333$\frac{5}{32}$	1,058,042	554,300	6,500
	Add last Balance on 31st March 1884	..	..	..	..	..	..	..	..	..	..	..	..	..	92,526	..	..	..	..
		..	..	..	..	..	..	..	..	..	..	..	..	..	210,543	..	..	..	..

B.—STATEMENT showing the disposal of Bark and other Produce collected in the Government Cinchona Plantations during the Official Year 1884-85.

1	2	3 Bark.								4 Seed.			5 Propagated Plants and Seedlings.					Remarks.
		a Supplied to Dr. Cleaver.		b Sold in the Country.		c Supplied to the Medical Department, &c.		d Total.		a Sold to the Public.	b Used for Nurseries.	c Total.	a Plants.		b Seedlings.		c Rooted Cuttings.	
Name of Plantation.	Name of Species.	Bales.	Quantity.	Bales.	Quantity.	Bales.	Quantity.	Bales.	Quantity.				Sold to Public.	Permanently put up in the Plantations.	Sold to Public.	Transplanted.	Transplanted to Nurseries.	
		NO.	LB.	NO.	LB.	NO.	LB.	NO.	LB.	LB.	LB.	LB.						
Dodabetta ..	Cinchona Bark ..	5	500	615	61,500	5	500	625	62,500	55$\frac{3}{16}$	4	59$\frac{3}{16}$	..	150,000	..	3,000	..	
Naduvatam ..	Do.	5	500	195	19,480	5	500	205	20,480	195$\frac{31}{64}$	14	209$\frac{31}{64}$	..	140,370	..	32,500	6,500	
Hooker	Do.	..	..	..	..	..	..	..	..	..	2	2	..	223,000	..	121,800	..	
Wood	Do.	10	1,000	9	900	..	..	19	1,900	..	..	..	..	45,165	..	..	..	
	Total ..	20	2,000	819	81,880	10	1,000	849	84,880	251$\frac{19}{64}$	20	271$\frac{19}{64}$	..	558,535	..	157,300	6,500	
	Add balance on 31st March 1885	..	..	..	..	..	..	..	125,663	..	..	..	..	..	..	..	..	
		..	..	..	..	..	..	..	210,543	..	..	..	..	..	..	..	..	

(Signed) M. A. LAWSON,
Director.

OOTACAMUND,
9th July 1885.

No. 9.

STATEMENT showing the Receipts and Expenditure of the Government Cinchona Plantations, Nilgiris, during 1884-85.

Name of Plantation.	Receipts.		Expenditure.					
			A. Conservancy and Works.		B. Establishment.		Budget Estimate.	Grand Total.
	Budget Estimate.	Total.	Budget Estimate.	Total.	Budget Estimate.	Total.		
	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.
Office and General.	45,900	84,895 7 5	6,350	13,601 9 8	15,112	13,374 14 6	21,462	26,976 8 2
Naduvatam ..	..	..	25,196	22,421 0 8	2,916	2,629 7 0	28,112	25,050 7 8
Dodabetta ..	..	..	23,325	17,368 15 1	3,516	3,161 3 2	26,841	20,530 2 3
Hooker	..	..	7,750	9,273 0 1	600	600 0 0	8,350	9,873 0 1
Wood	..	..	5,640	4,824 8 0	840	648 10 8	6,480	5,473 2 8
Total ..	45,900	84,895 7 5	68,261	67,489 1 6	22,984	20,414 3 4	91,245	87,903 4 10

OOTACAMUND,
9th July 1885.

(Signed) M. A. LAWSON,
Director.

READ—the following memorandum from the Joint Secretary to Government, Public Works Department, to the Secretary to Government, Revenue Department, dated Ootacamund, 27th July 1885, No. 379-E :—

In reply to memorandum from the Revenue Department, No. 408, dated 17th July 1885, the undersigned has the honor to state that the expenditure incurred from the Provincial Public Works Budget in 1884-85 on account of cinchona buildings in the Nilgiri division was as follows :—

	RS.	A.	P.
Drying shed and bark store for cinchona plantation at Naduvatam	1,558	14	8
Repairing doors of the new store shed at Naduvatam ...	43	9	0
Total	1,602	7	8

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

READ—the following letter from Major A. C. SMITH, R.E., Executive Engineer, Nilgiri Division, to the Chief Engineer, Public Works Department, dated Ootacamund, 20th August 1885, No. 1429 :—

In returning herewith your endorsement, No. 472-E, of 17th instant, I have the honor to report that the cinchona buildings at Naduvatam therein referred to were completed in August 1884, and the required completion report with certificate were submitted to the Chief Secretary to Government on the 26th September 1884. The latter was duly returned signed to this office.

No. 494-E.

Forwarded to the Revenue Department with advertence to its memorandum, No. 460, dated 15th August 1885.

OOTACAMUND,
21st August 1885.

(Signed) J. SHAW-STEWART, Col., R.E.,
Secy. to Govt., P.W.D.

No. 5.

STATEMENT showing the number of trees barked and the quantity of green bark obtained under various systems of cropping on the Government Cinchona Plantations, Nilgiris, for 1884-85.

Name of Plantation.	Under Stripping and Mossing System.				Coppicing.				Uprooting.	
	Crown.		Red.		Crown.		Red.		Crown.	
	Trees.	lb.	Trees.	lb.	Trees.	lb.	Trees.	lb.	Trees.	lb.
1	2	3	4	5	6	7	8	9	10	11
Dodabetta	27,005	78,066	..	..	5,603	51,615	..	..	200	2,111
Naduvatam	..	..	50	246	5	58	1,832	28,307	4,913	39,132 * 58
Hooker	..	..	..	..	..	..	..	..	..	..
Wood	..	..	..	..	..	..	1,410	15,548	..	* 1,175
Total ..	27,005	78,066	50	246	5,608	51,673	3,242	43,855	5,113	42,476

Name of Plantation.	Uprooting (Continued.)		Scraping.				Pubescens or Magnifolia, &c.		Total.	
	Red.		Crown.		Red.					
	Trees.	lb.	Trees.	lb.	Trees.	lb.	Trees.	lb.	Trees.	lb.
	12	13	14	15	16	17	18	19	20	21
Dodabetta	..	..	2,042	3,750	..	..	† 64	410	34,914	135,952
Naduvatam	139	1,415 * 1,342	..	..	9,253	40,858	..	..	16,192	111,416
Hooker	2,685	33,180 * 78	..	..	..	..	..	..	2,685	33,258
Wood	1,222	12,751 * 778	..	..	..	..	..	..	2,632	30,252
Total ..	4,046	49,544	2,042	3,750	9,253	40,858	64	410	56,423	310,878

* Fallen trees.

† Fifteen coppiced included under this.

No. 6.

STATEMENT showing the Quantity of Seed, &c., sold to the public during 1884-85.

Particulars.	Seed.		Plants.	Seedlings.
Dodabetta.				
	LB.	OZ.		
Cinchona Officinalis	40	9	...	...
Do. Magnifolia	15	4	...	...
Do. Uritusinga	...	...	...	...
Naduvatam.				
Cinchona Succirubra	76	10	...	...
Do. Officinalis	..	...	...	...
Do. Pubescens	118	13¾	...	...
Total ...	251	4¾	...	...

OOTACAMUND,
9th July 1885.

(Signed) M. A. LAWSON,
Director.

No. 9.

STATEMENT showing the Receipts and Expenditure of the Government Cinchona Plantations, Nilgiris, during 1884-85.

Name of Plantation.	RECEIPTS.		EXPENDITURE.					
			A. Conservancy and Works.		B. Establishment.		Budget Estimate.	Grand Total.
	Budget Estimate.	Total.	Budget Estimate.	Total.	Budget Estimate.	Total.		
	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.
Office and General.	45,900	84,895 7 5	6,350	13,601 9 8	15,112	13,374 14 6	21,462	26,976 8 2
Naduvatam ..	..	..	25,196	22,421 0 8	2,916	2,629 7 0	28,112	25,050 7 8
Dodabetta ..	..	..	23,325	17,368 15 1	3,516	3,161 3 2	26,841	20,530 2 3
Hooker	..	..	7,750	9,273 0 1	600	600 0 0	8,350	9,873 0 1
Wood	..	..	5,640	4,824 8 0	840	648 10 8	6,480	5,473 2 8
Total ..	45,900	84,895 7 5	68,261	67,489 1 6	22,984	20,414 3 4	91,245	87,903 4 10

OOTACAMUND,
9th July 1885.

(Signed) M. A. LAWSON,
Director.

READ—the following memorandum from the Joint Secretary to Government, Public Works Department, to the Secretary to Government, Revenue Department, dated Ootacamund, 27th July 1885, No. 379-E :—

In reply to memorandum from the Revenue Department, No. 408, dated 17th July 1885, the undersigned has the honor to state that the expenditure incurred from the Provincial Public Works Budget in 1884-85 on account of cinchona buildings in the Nílgiri division was as follows :—

	RS.	A.	P.
Drying shed and bark store for cinchona plantation at Naduvatam	1,558	14	8
Repairing doors of the new store shed at Naduvatam ...	43	9	0
Total	1,602	7	8

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

READ—the following letter from Major A. C. SMITH, R.E., Executive Engineer, Nílgiri Division, to the Chief Engineer, Public Works Department, dated Ootacamund, 20th August 1885, No. 1429 :—

In returning herewith your endorsement, No. 472-E, of 17th instant, I have the honor to report that the cinchona buildings at Naduvatam therein referred to were completed in August 1884, and the required completion report with certificate were submitted to the Chief Secretary to Government on the 26th September 1884. The latter was duly returned signed to this office.

No. 494-E.

Forwarded to the Revenue Department with advertence to its memorandum, No. 460, dated 15th August 1885.

OOTACAMUND,
21st August 1885.

(Signed) J. SHAW-STEWART, Col., R.E.,
Secy. to Govt., P.W.D.

No. 1.

STATEMENT showing the Rainfall at the several Government Cinchona Plantations, Nilgiris, during the Official Year 1884-85.

Months.	DODABETTA.				NADUVATAM.				HOOKER.				WOOD.			
	For 1883-84.		For 1884-85.		For 1883-84.		For 1884-85.		For 1883-84.		For 1884-85.		For 1883-84.		For 1884-85.	
	Rainfall.	Number of Wet Days.	Rainfall.	Number of Wet Days.	Rainfall.	Number of Wet Days.	Rainfall.	Number of Wet Days.	Rainfall.	Number of Wet Days.	Rainfall.	Number of Wet Days.	Rainfall.	Number of Wet Days.	Rainfall.	Number of Wet Days.
April 1884.	2·72	9	3·59	7	2·45	9	3·37	6	2·95	9	2·85	8	4·28	9	2·79	8
May ,,	7·58	19	5·05	12	3·78	15	3·85	8	3·85	14	5·76	10	3·91	11	8·59	11
June ,,	3·97	14	5·20	14	15·13	27	7·34	18	11·45	25	5·62	15	11·07	23	5·37	14
July ,,	9·35	24	1·87	12	32·48	30	19·38	28	30·23	27	15·63	24	28·24	28	11·42	25
August ,,	6·47	26	6·39	20	27·76	31	30·03	27	22·95	28	33·67	24	21·30	30	19·80	24
September ,,	2·39	7	3·28	10	5·04	13	9·23	24	3·11	12	10·16	22	2·31	9	6·61	22
October ,,	12·63	23	20·09	19	8·89	24	14·80	15	9·46	23	19·63	15	12·19	22	19·72	16
November ,,	2·95	10	11·68	19	3·43	8	2·58	8	4·19	9	5·07	13	5·66	7	6·43	14
December ,,	2·34	5	3·85	8	3·10	5	1·54	5	2·72	5	4·68	3	3·85	7	4·05	3
January 1885.	1·09	3	..	..	..	..	..	..	..	..	..	..	0·45	2	..	..
February ,,	..	..	..	..	..	..	0·84	2	..	..	1·20	2	..	..	1·28	2
March ,,	..	..	0·20	2	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	51·49	140	61·20	123	102·06	162	92·96	141	91·91	152	104·27	136	93·26	148	86·06	139

(Signed) M. A. LAWSON,
Director.

OOTACAMUND,
9th July 1885.

No. 2.

Statement showing the Receipts on account of the Government Cinchona Plantations, Nílgiris, for 1884-85.

Particulars.	Sanctioned and Revised Budget Estimate for 1884-85.	Actuals for 1884-85.
	RS.	RS. A. P.
Value of Bark sent Home ...	...	...
Do. sold locally ...	45,000	82,344 2 0
Do. supplied to Bombay Medical Department ...	...	1,007 8 0
Do. supplied to Madras Medical Department ...	150	...
Sale proceeds of seed and plants ...	700	1,033 2 0
Miscellaneous ...	50	510 11 5
Total ...	45,900	84,895 7 5

No. 3.

Statement showing the Expenditure of Office and General for the Official Year ending 1884-85.

Months.	Salaries.			Travelling Allowance.		Contingencies.		
	Pay of the Director.	Pay of the Quinologist.	Office Establishment.	For Director.	For Subordinates.	Service Stamps.	Service Telegram.	I (b) Contingencies.
1	2	3	4	5	6	7	8	9
	RS.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
April 1884.	600	..	151 0 0	..	118 8 0	5 0 0	..	18 5 0
May ,,	639	..	150 12 0	135 0 0	..	..	..	..
June ,,	600	..	151 0 0	..	..	10 0 0	2 0 0	18 15 0
July ,,	600	..	151 0 0	84 0 0	..	..	..	4 3 0
August ,,	600	..	151 0 0	..	143 4 0	..	..	..
September ,,	600	..	151 0 0	59 0 0	140 8 0	5 0 0	3 1 0	35 0 0
October ,,	600	..	151 0 0	438 10 8	..	..	..	..
November ,,	600	676 10 8	151 0 0	..	80 0 0	20 0 0	5 14 0	9 0 0
December ,,	600	350 0 0	151 0 0	..	..	..	..	..
January 1885.	600	350 0 0	151 0 0	199 0 0	..	..	4 0 0	9 12 6
February ,,	600	350 0 0	51 0 0	207 0 0	60 0 0	..	..	..
March ,,	600	350 0 0	51 0 0	..	41 12 6	15 0 0	6 0 0	25 6 9
Total ..	7,239	2,076 10 8	1,611 12 0	1,122 10 8	584 0 6	55 0 0	20 15 0	120 10 3

Months.	Contingencies—(Continued).		Unforeseen Charges.		Carriage of Crop.		Amounts communicated by the Accountant-General.	Total.
	Printing Charges.	Miscellaneous.	Assessment.	Land and Village Cess.	Gunnies.	Carriage of Bark, &c.		
	10	11	12	13	14	15	16	17
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
April 1884.	..	..	..	..	..	..	..	892 13 0
May ,,	..	..	..	..	..	..	..	924 12 0
June ,,	..	..	..	80 15 7	..	..	..	862 14 7
July ,,	..	..	..	..	1,750 8 0	..	..	2,589 11 0
August ,,	..	..	..	..	..	175 0 0	..	1,069 4 0
September ,,	..	..	118 4 0	..	..	..	..	1,111 13 0
October ,,	..	..	..	..	..	..	..	1,189 10 8
November ,,	..	..	..	..	..	100 0 0	..	1,642 8 8
December ,,	..	..	126 0 0	..	..	..	..	1,227 0 0
January 1885.	9 3 0	{ 466 14 7 { 39 7 8	} ..	..	1,426 15 0	..	2,681 6 2	5,937 10 11
February ,,	..	..	..	..	..	..	6,386 12 4	7,654 12 4
March ,,	28 10 2	..	..	161 15 2	..	242 1 0	351 12 5	1,873 10 0
Total ..	37 13 2	506 6 3	244 4 0	242 14 9	3,177 7 0	517 1 0	9,419 14 11	26,976 8 2

Ootacamund,
9th July 1885.

(Signed) M. A. LAWSON,
Director.

No. 4.

Statement showing the Expenditure in Detail of the Government Cinchona Plantations, Nílgiris, for 1884-85.

Name of Plantation.	Establishment.	Nurseries.				Upkeep.				
		Propagation.	Labor.	Collection of Seed.	Various.	Working Charges.				Manure.
						Pitting and Planting.	Weeding.	Roads and Bridges.	Various.	
1	2	3	4	5	6	7	8	9	10	11
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Naduvatam ..	2,629 7 0	542 0 0	755 12 7	357 2 0	2 4 0	4,602 13 4	3,327 13 8	1,162 7 5	2,835 11 1	2,869 10 0
Dodabetta ..	3,161 3 2	667 12 0	430 0 0	118 12 6	15 0 0	2,354 12 9	2,526 4 0	547 11 3	2,922 12 11	1,847 9 0
Hooker ..	600 0 0	..	726 9 11	8 0 0	..	4,249 8 1	1,893 6 9	325 1 6	823 8 11	485 6 2
Wood ..	648 10 8	..	302 13 9	8 0 0	..	647 14 1	877 15 9	159 10 0	957 3 4	1,161 12 3
Total ..	7,039 4 10	1,209 12 0	2,215 4 3	491 14 6	17 4 0	11,855 0 3	8,625 8 2	2,194 14 2	7,539 4 3	6,364 5 5

Name of Plantation.	Collection of Crop.					Repair of Building.	Peons' Clothing.	Firewood Plantation.	Total.
	Barking and Mossing.	Collection of Moss and Grass.	Drying Bark.	Packing Bark.	Various.				
	12	13	14	15	16	17	18	19	20
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Naduvatam ..	1,033 13 0	71 8 0	718 0 9	45 4 6	2,555 11 3	{ 431 3 9 { *270 5 7	} 25 0 0	814 7 9	25,050 7 8
Dodabetta ..	2,306 14 6	1,595 3 6	99 1 0	116 0 6	1,354 11 0	466 6 2	..	..	20,530 2 3
Hooker ..	241 15 0	21 8 0	0 12 6	..	483 12 9	13 6 6	..	..	9,873 0 1
Wood ..	258 8 6	..	80 2 6	13 6 6	97 11 7	259 5 9	..	..	5,473 2 8
Total ..	3,841 3 0	1,688 3 6	898 0 9	174 11 6	4,491 14 7	1,440 11 9	25 0 0	814 7 9	60,926 12 8

* New cooly lines.

Ootacamund,
9th July 1885.

(Signed) M. A. LAWSON,
Director.

No. 5.

Statement showing the number of trees barked and the quantity of green bark obtained under various systems of cropping on the Government Cinchona Plantations, Nilgiris, for 1884-85.

Name of Plantation.	Under Stripping and Mossing System.				Coppicing.				Uprooting.	
	Crown.		Red.		Crown.		Red.		Crown.	
	Trees.	lb.	Trees.	lb.	Trees.	lb.	Trees.	lb.	Trees.	lb.
1	2	3	4	5	6	7	8	9	10	11
Dodabetta	27,005	78,066	..	..	5,603	51,615	..	..	200	2,111
Naduvatam	..	..	50	246	5	58	1,832	28,307	4,913	39,132 / * 58
Hooker	..	..	..	..	..	..	..	..	..	..
Wood	..	..	..	..	..	..	1,410	15,548	..	* 1,175
Total ..	27,005	78,066	50	246	5,608	51,673	3,242	43,855	5,113	42,476

Name of Plantation.	Uprooting (*Continued.*)		Scraping.				Pubescens or Magnifolia, &c.		Total.	
	Red.		Crown.		Red.					
	Trees.	lb.	Trees.	lb.	Trees.	lb.	Trees.	lb.	Trees.	lb.
	12	13	14	15	16	17	18	19	20	21
Dodabetta	..	..	2,042	3,750	..	..	† 64	410	34,914	135,952
Naduvatam	139 / * 1,342	1,415 / * 1,342	..	..	9,253	40,858	..	..	16,192	111,416
Hooker	2,685	33,180 / * 78	..	..	..	..	..	..	2,685	33,258
Wood	1,222	12,751 / * 778	..	..	..	..	..	..	2,632	30,252
Total ..	4,046	49,544	2,042	3,750	9,253	40,858	64	410	56,423	310,878

* Fallen trees. † Fifteen coppiced included under this.

No. 6.

Statement showing the Quantity of Seed, &c., sold to the public during 1884-85.

Particulars.	Seed.		Plants.	Seedlings.
	lb.	oz.		
Dodabetta.				
Cinchona Officinalis	40	9	...	...
Do. Magnifolia	15	4	...	...
Do. Uritusinga	...	...	...	...
Naduvatam.				
Cinchona Succirubra	76	10	...	...
Do. Officinalis	..	...	...	...
Do. Pubescens	118	13¾	...	...
Total ...	251	4¾	...	...

Ootacamund,
9th July 1885.

(Signed) M. A. LAWSON,
Director.

bright orange-brown, and the tint obtained was much superior in the animal fabrics as silk and wool, than in the vegetable tissues of cotton and linen. In these respects it resembles the dyeing properties of Kamala. As a commercial undertaking, however, it would not be profitable to collect Waras, as the amount obtained from the plants is so small in proportion compared with the yield of Kamala.

22. *The leaves of Erythroxylon Coca.*—The uses to which cocaine has been put in surgery by the Faculty has rendered it desirable to test the amount and nature of alkaloid from plants grown in India. Some leaves which had been carefully dried in the shade from trees in Barliyár have on three occasions been analysed by me. The first sample was examined by Trupheme's method; it yielded ·2 per cent. of an alkaloid which gave no characteristic results in physiological action. The second sample was treated according to Castaing's method and gave about the same amount of alkaloid which produced distinct numbness on the tongue, but Dr. Drake-Brockman of the Eye Infirmary, Madras, reported that it produced a smarting when applied to the mucous surface. A third sample had been tested by Dr. Squibb's process which afforded ·50 per cent. crude alkaloid, and ·30 per cent. cocaine hydrochlorate. This had a very marked numbness on the tongue and has been sent to Dr. Brockman who has kindly promised to report upon its value

23. *Moringa Gum.*—The gummy exudation of the Horse-radish tree (*Moringa pterygosperma*) consists chemically of a large quantity of bassorin or insoluble gum with a small proportion of arabin or the soluble kind and a trace of moringa-tannic acid. It swells up to a remarkable extent when steeped in water, gelatinizes with ferric chloride, gives an abundant precipitate with subacetate of lead, and is soluble in caustic alkalies. In these and other respects it resembles the Gum-Hogg of America. Gum-Hogg is derived from an unknown source and imported from the East Indies; it is used in marbling paper for binding books. It seems not improbable that Moringa gum if not identical with it, could be used for the same purpose in the arts.

24. *The funicles of the Black Wattle* (*Acacia melanoxylon*)—are in the shape of pink contorted bands, and were supposed to contain a dye. They were free from starch and tannin and yielded 6 per cent. of moisture and 2 per cent. of ash. Their chief constituent is an albuminous matter similar to the white of an egg. About 30 per cent. is readily extracted by macerating the funicles in water. When this solution is heated, the albumen coagulates and the pink coloring matter is destroyed. Being of no use as a dye, their peculiar office seems to be that of affording nourishment to the seed.

25. *Deposit from the milky secretion of the Jack fruit* (*Artocarpus integrifolia*).—This was a thick white tenacious substance similar to bird-lime, with no marked odour and taste. It contained 20 per cent. water and the residue burnt with a bright flame giving off a sooty smoke. It was insoluble in water, partly so in alcohol, and entirely in benzol. It was a variety of caoutchouc, and as such would be useful as a bird-lime, and a cement for broken articles.

26. I have lately received a large quantity of indigenous gums, and other vegetable substances for examination. These will be tested whenever an opportunity is afforded, and a report forwarded upon them in due course.

(True Copy.)

(Signed) M. A. LAWSON,
Director.

14. The samples of *C. morada* and *C. verde* were from young trees grown in the same estate near Calicut. The first was taken from "20 average trees, with a girth of 5½ inches, broad leaf, dark olive green, red midrib, and under surface purple or flesh colored." The second was taken from "20 average trees with a girth of six inches, narrower leaf, color light green, yellowish midrib, and upper surface of the leaf smooth." The analysis and thickness of stem are exceedingly good for such young plants, and these results apparently contradict the unfavorable statements made in certain quarters respecting them.

15. *Complete analysis of a tree.*—In December last a tree of *Cinchona succirubra* growing at Naduvatam was submitted to a thorough examination, in order to discover the distribution of alkaloids in its various parts. The tree was 23 years old and 31 feet high; it had grown in an exposed situation, and had never been barked or mossed. The stem was cut into 11 equal lengths from base to summit. The whole yielded of dry bark—

	LB.	OZ.
Root	2	8
Stem	20	14
Branch	3	2
Twig	1	6
Total ...	27	14
Leaves dried	2	...

A portion of the bark from each length was then examined separately, also samples of the root, branch, twig and leaves.

In the following table the results are recorded; the amount of moisture in each is reduced to the same, so that the whole may be comparable. The first seven are each the mean of two analyses:—

—	Quinine.	Cinchonidine.	Quinidine.	Cinchonine.	Amorphous Alkaloids.	Total.	Ash.
Root Bark	·93	·66	·45	2·09	1·17	5·30	3·25
Stem below ground	·73	1·15	trace.	1·39	·94	4·21	3·88
2nd portion of stem	·66	1·04	..	1·52	·75	3·97	3·42
3rd do. do.	·63	·97	..	1·29	·92	3·81	3·42
4th do. do.	·65	·95	..	1·30	·77	3·67	3·35
5th do. do.	·72	1·00	..	1·21	·78	3·71	3·33
6th do. do.	·75	1·01	..	1·11	·73	3·60	3·20
7th do. do.	·78	1·11	..	1·17	·80	3·86	3·16
8th do. do.	·87	1·23	..	1·13	·82	4·05	3·22
9th do. do.	·97	1·32	..	1·30	·60	4·19	3·31
10th do. do.	·98	1·36	..	1·42	·65	4·41	3·56
11th do. do.	1·01	1·37	..	2·28	·51	5·17	3·83
Branch	·95	1·35	..	2·10	·60	5·00	4·86
Twig	·29	·34	..	·34	2·42	3·39	5·61
Leaves	·23		..	·02	·45	·70	5·74

The table shows that the minimum yield in the stem was in that part at which the branches were given off, and that the smaller and thinner bark of the summit and branches contained more than the thicker bark at the base. The ratio between the quinine and cinchonidine remains constant throughout the stem and branches. The root is an exception to this rule as the quinine is in the ascendant, and as usual is rich in quinidine. The whole examination is a proof that trees when neglected and exposed deteriorate very perceptibly in their alkaloidal value; also that in fast-growing cinchonas a maximum yield of alkaloids is reached at a somewhat early period, and unless the yield is encouraged by removal of the natural bark and renewing under shelter, a decrease of the alkaloids takes place.

16. The effect of sun-light and shade upon the amount of quinine in cinchona bark was the subject of an investigation by my predecessor Mr. John Broughton, but to know if these influences were still at work, and if so, to what extent, the following experiment was made. A tree of *C. pubescens* of twenty years' growth was taken at Naduvatam. It was on the margin of a plot, and so situated that its south side was freely exposed to the sun, the north side was protected and shaded by the other trees in its vicinity. A strip of bark from each side was taken, dried and analysed. The percentage composition was as follows:—

	South.	North.
Quinine	2·63	4·00
Cinchonidine	1·81	2·05
Cinchonine	0·28	0·22
Amorphous	0·50	0·50
Total ...	5·22	6·77

17. *Mossing and Renewing.*—The process of "mossing" has now been adopted in the plantations for about twenty years, and has been most valuable in increasing the amount of alkaloids and especially of quinine in cinchona bark. But whether the system is still successful when applied to older trees under cultivation, appeared to be an important subject for inquiry. The following experiments were made upon trees of *C. officinalis* nearly twenty years old from Plot 12, Dodabetta. Early in October last samples were taken for analysis from three individual trees, as natural, mossed and renewed bark in strips. The trees were respectively covered with moss and labelled, and the samples analysed. After six months interval the trees were again visited and samples taken. The renewals had not sufficiently developed to enable them to be tested, they were very thin and adhered closely to the wood. A portion of the bark which had been under moss six months, and further portions of the mossed and renewed barks were separated. The analyses of the six samples are annexed:—

—	Natural Bark.	Mossed six months.	Mossed Bark.	Mossed six months.	Renewed Bark.	Mossed six months.
Quinine	3·32	4·21	3·98	4·22	3·80	4·33
Cinchonidine	1·65	1·88	1·94	1·77	0·84	0·67
Quinidine	0·24	0·21	0·33	0·30	0·31	0·34
Cinchonine and Amorphous	0·66	1·03	0·91	1·04	0·68	1·52
Total ..	5·87	7·33	7·16	7·33	5·63	6·86

It will be seen that the mossing has improved in each case the three varieties of bark, and the improvement has not only been in the total alkaloid but also in quinine. From the analyses of such a small number of trees it would be injudicious to form too strong an opinion; but I think it shows generally (1) that old and original trees still increase their alkaloids by mossing, (2) that mossed barks are increased by further mossing, (3) that renewals continue to improve.

18. The scales which form on the outside of Ledger barks, and which are readily detached when the sample is dry, have been considered by some planters to be the richest portion. From the sample of Ledger received from the Wynaad, I was able to remove sufficient of the scales to analyse. It afforded quinine 3·16, cinchonidine 0·62, quinidine 0·11, cinchonine 0·06, amorphous alkaloids 0·63; total 4·58 per cent. The analysis is very characteristic of this species, but it will be seen that the total alkaloids only amount to about half the quantity found in the entire bark.

19. *The ash of Cinchona bark.*—In every analysis of bark it has been my custom to determine the amount of ash. The average of over 100 estimations of all the kinds of bark that have come under my notice, I find to be 3·50 per cent. As a rule young and branch barks are the highest, and old barks are lowest in their amount of mineral matter.

20. Besides the work of a quinological nature I have to report on the investigation of some other plant products which you have from time to time forwarded to me. The apparatus and chemicals I have at my disposal are not sufficient to make complete researches into these specimens as I think the nature of the work requires. But as there might be some interest in the work already done, the following notes are given.

21. *Waras.*—The resinous and powdery glands covering the pods of *Flemingia congesta* afford a very permanent dye and much resemble in appearance the Kamala of the Pharmacopœias. A proximate analysis of this substance gave the composition as follows:—

Moisture	3·44
Resins	73·10
Matters soluble in water	8·20
Cellulose	9·60
Volatile oil	trace.
Ash	6·03
Total ...	100·37

The coloring principle resides in the resin which is soluble in ether, alcohol, benzol, chloroform and caustic soda solution. When a concentrated ethereal solution was allowed to stand for a day it deposited a mass of granular crystals, similar to those discovered by Doctor Anderson in "Kamala" (glands from the fruit of an Euphorbiaceous plant). When the coloring matter of Waras was examined side by side with that of Kamala by means of a spectroscope, the amount of absorption was identical in each case, all the spectrum was darkened throughout except the red end which alone was visible. A dye-bath was made of the Waras, and pieces of cotton, linen, wool and silk were immersed. The color formed was that of a

bright orange-brown, and the tint obtained was much superior in the animal fabrics as silk and wool, than in the vegetable tissues of cotton and linen. In these respects it resembles the dyeing properties of Kamala. As a commercial undertaking, however, it would not be profitable to collect Waras, as the amount obtained from the plants is so small in proportion compared with the yield of Kamala.

22. *The leaves of Erythroxylon Coca.*—The uses to which cocaine has been put in surgery by the Faculty has rendered it desirable to test the amount and nature of alkaloid from plants grown in India. Some leaves which had been carefully dried in the shade from trees in Barliyár have on three occasions been analysed by me. The first sample was examined by Trupheme's method; it yielded ·2 per cent. of an alkaloid which gave no characteristic results in physiological action. The second sample was treated according to Castaing's method and gave about the same amount of alkaloid which produced distinct numbness on the tongue, but Dr. Drake-Brockman of the Eye Infirmary, Madras, reported that it produced a smarting when applied to the mucous surface. A third sample had been tested by Dr. Squibb's process which afforded ·50 per cent. crude alkaloid, and ·30 per cent. cocaine hydrochlorate. This had a very marked numbness on the tongue and has been sent to Dr. Brockman who has kindly promised to report upon its value

23. *Moringa Gum.*—The gummy exudation of the Horse-radish tree (*Moringa pterygosperma*) consists chemically of a large quantity of bassorin or insoluble gum with a small proportion of arabin or the soluble kind and a trace of moringa-tannic acid. It swells up to a remarkable extent when steeped in water, gelatinizes with ferric chloride, gives an abundant precipitate with subacetate of lead, and is soluble in caustic alkalies. In these and other respects it resembles the Gum-Hogg of America. Gum-Hogg is derived from an unknown source and imported from the East Indies; it is used in marbling paper for binding books. It seems not improbable that Moringa gum if not identical with it, could be used for the same purpose in the arts.

24. *The funicles of the Black Wattle* (*Acacia melanoxylon*)—are in the shape of pink contorted bands, and were supposed to contain a dye. They were free from starch and tannin and yielded 6 per cent. of moisture and 2 per cent. of ash. Their chief constituent is an albuminous matter similar to the white of an egg. About 30 per cent. is readily extracted by macerating the funicles in water. When this solution is heated, the albumen coagulates and the pink coloring matter is destroyed. Being of no use as a dye, their peculiar office seems to be that of affording nourishment to the seed.

25. *Deposit from the milky secretion of the Jack fruit* (*Artocarpus integrifolia*).—This was a thick white tenacious substance similar to bird-lime, with no marked odour and taste. It contained 20 per cent. water and the residue burnt with a bright flame giving off a sooty smoke. It was insoluble in water, partly so in alcohol, and entirely in benzol. It was a variety of caoutchouc, and as such would be useful as a bird-lime, and a cement for broken articles.

26. I have lately received a large quantity of indigenous gums, and other vegetable substances for examination. These will be tested whenever an opportunity is afforded, and a report forwarded upon them in due course.

(True Copy.)

(Signed) M. A. LAWSON,
Director.

READ—the following letter from M. A. LAWSON, Esq., Director, Government Cinchona Plantations, &c., Nílgiris, to the Secretary to Government, Revenue Department, dated Ootacamund, 22nd August 1885, No. 42:—

With reference to official memorandum, No. 467, dated the 21st August 1885, Revenue, I have the honor to inform you that the total amount of cinchona bark, which has been given to Mr. Hooper for analyses, has been only a few pounds and the outside value of this will be under Rs. 10.

READ—the following letter from M. A. LAWSON, Esq., Director, Government Cinchona Plantations, Ootacamund, to the Secretary to Government, Revenue Department, dated Ootacamund, 2nd September 1885, No. 44:—

With reference to official memorandum in the Revenue Department, No. 488, dated the 26th August 1885, I have the honor to forward a statement showing the description, quantity and value of the 20 bales or 2,000 lb. of bark supplied to Dr. E. L. Cleaver under the terms of G.O., No. 5389, of 2nd December 1884.

2. I have calculated the value of the bark after taking the unit of quinine at 5·35 pence, and then deducting 25 per cent.

ENCLOSURE.

STATEMENT showing the Quantity and Value of the Bark supplied to Dr. Cleaver under G.O., No. 5389, dated 2nd December 1884.

Description of Bark.	Number of Bales.	Quantity of Bark.	Number of units of Sulphate of Quinine.	Value per Bale in Rupees at 5·35 per unit.	Value per Bale reduced by 25 per cent.	Total Value.
		LB.		RS. A. P.	RS. A. P.	RS. A. P.
Dodabetta Renewed Crown .	5	500	4·06	109 0 0	81 12 0	408 12 0
Pykara Natural Red ..	5	500	1·56	41 0 0	30 12 0	153 12 0
Naduvatam Branch Red ..	5	500	1·29	31 0 0	23 4 0	116 4 0
Pykara Renewed Red ..	5	500	2·54	68 0 0	51 0 0	255 0 0
Total ..	20	2,000	..	249 0 0	186 12 0	933 12 0

ORDER—dated 11th September 1885, No. 1016, Revenue.

Miscellaneous.

In the first of the papers read above, the Director of Government Cinchona Plantations, Parks and Gardens, Nílgiris, submits his report on the cinchona plantations for the official year 1884-85 and the report of the Government Quinologist for the latter half of the same year.

2. *State of the Season.*—The season was on the whole not unfavorable, although on the Dodabetta estate some damage resulted in the earlier months of the year from drought and in the months of October and November from unusually heavy rain. At Naduvatam nearly the whole of the June plantings were destroyed by violent winds in the following month, but the damage done was easily repaired later in the season. On the Hooker and Wood estates the weather was all that could be desired.

3. *Condition of the Plantations.*—The plantations on the Dodabetta and Naduvatam estates were generally in fair condition, the trees coppiced last year having thrown up shoots satisfactorily. At Naduvatam the plantings of 1882 and 1883 are described as looking remarkably well, the result of their having been liberally manured. It is presumed that in replanting vacant plots the intention announced last year of confining particular varieties to particular plots has been carefully carried out. In

16. *Quinology.*—The Government note with pleasure the very useful work done since his arrival in this country by Mr. Hooper. His report shows that a satisfactory start has been made in the scientific investigation of cinchona culture and of the conditions which affect its alkaloidal value. During the year under report, however, his attention has been largely devoted to the practical question of manufacturing at a minimum of cost the liquid extract of cinchona devised by Dr. de Vrij of the Hague. A sample of this preparation manufactured under Mr. Hooper's directions has been tested in some of the hospitals with the most satisfactory results, and instructions have been issued for the preparation of 1,000 lb. of the extract in view to further trials. It has been found experimentally that the liquid extract can be produced at a price about 30 per cent. lower than that of the febrifuge obtained from Bengal, and there appear to be good reasons for believing that eventually the cost will be found to be still lower. In view, partly, of this fact, the question of establishing agencies under the Local Fund Boards for the distribution of cheap medicines to the poorer classes has been referred to those Boards for consideration.

17. *Receipts and Expenditure.*—The receipts of the year amounted to Rs. 84,895-7-5 as detailed on the margin against a revised estimate of Rs. 45,900. The bulk of the increase is due partly to the sale of a larger quantity of bark than was anticipated, partly to the inclusion in the lots sold of a larger proportion of crown bark than was at first intended, and partly to a slight recovery in prices. It was expected that some 600 bales would be sold for an average price of Rs. 75 per bale, but eventually 819 bales were disposed of for a fraction over 100 rupees each.

	Rs.	A.	P.
Value of bark sold locally ...	82,344	2	0
Value of bark supplied to Bombay Medical Department...	1,007	8	0
Sale-proceeds of seed, &c. ...	1,033	2	0
Miscellaneous	510	11	5
Total ...	84,895	7	5

18. The expenditure, as reported by the Director, was Rs. 87,903-4-10 against a budget estimate of Rs. 83,800 and a revised estimate of Rs. 91,240. This includes a sum of Rs. 2,681-6-2 adjusted during the year and representing the cost of manufacture of the 393 lb. of febrifuge advised in the Secretary of State's despatch recorded in G.O., No. 705, dated 4th June 1884. Of this amount, however, a sum of Rs. 101-11-1, representing the three latter items noted on the margin, has already been deducted from the receipts of 1883-84 in taking credit for the net value of the 393 lb. of febrifuge. The balance, viz., Rs. 2,579-11-1, should have been deducted at the same time, but was by an oversight omitted from the calculation. The deduction will now be made and the receipts of 1883-84 will then stand at Rs. 85,080-13-2. The charges for the year under report will consequently be reduced by the whole amount, viz., Rs. 2,681-6-2. To the figure thus arrived at must be added the charges (Rs. 1,602-7-8) incurred by the Public Works Department in the construction and repair of cinchona buildings. The whole charges for 1884-85 will thus amount to Rs. 86,824-6-4.

	£.	s.	d.
393 lb. febrifuge at 8*d.* per oz....	209	12	0
Packing	4	18	3
Analysis	3	3	0
Labels	0	4	0
Total ...	217	17	3

Equivalent at 1*s.* 7½*d.* per rupee. Rs. 2,681-6-2

19. The tabular statements which accompany the Director's report have been remodelled as directed in G.O., 17th September 1884, No. 1050. It is observed, however, that statement III still shows the expenditure of the head office for each *month* of the year. This is not necessary, a statement of annual charges being alone required, which should be compared with the budget and revised estimates. The Director is requested to report whether it would not be possible in future years to prepare statements, similar to those furnished in connection with the Bengal plantations, showing the number and distribution of the different varieties of plants on the several estates. A comparative statement should, also, be furnished showing the quantity of bark *of the different kinds* in store at the commencement of the year, collected and disposed of during the year, and remaining in store at its close.

3. My appointment was made with a view to advance the practice of cinchona culture at the Government Plantations "by analysing the bark of a very large number of their trees in different stages of their growth, when treated under different systems, and when grown at different altitudes."

4. The periodical sales of bark which are now made by public auction at Madras have been accompanied with analyses of the various samples. In November, 18 samples were reported upon, and for the February and March sales four samples were tested. Of these, 16 were crown and 6 red bark. The percentages of sulphate of quinine in the former were —

Natural, average of	5	analyses	3·18
Mossed	3	"	4·09
Renewed	4	"	4·22
Branch	3	"	1·60
Root,	one analysis	... ...	4·40

The percentages of total alkaloids in the Red barks were Natural 5·10, Mossed 6·87, Renewed 6·81, Branch 4·45, 3·07, Root 8·17.

These analyses were printed and circulated amongst the buyers at the sales, and have enabled a reserve price to be placed on the various lots.

5. With reference to paragraph 62 of your last annual report, Dr. W. R. Cornish, the then Surgeon-General, suggested that a liquid preparation might be made of the red bark, which you say does not command a remunerative price in the market, and the preparation might be similar to those of DeVrij, Schacht, Paul and Umney advertised in the British Medical papers. When in Holland I was conversant with the process for making "Cinchona Liquida" of Dr. J. E. DeVrij, the well-known Quinologist, and had made a sample before Dr. Cornish's suggestion arrived. At his request a further supply of a gallon was made, and this was distributed to various dispensaries in the Presidency, in districts where fever was most prevalent. Such good reports on the efficacy of the liquid extract were sent in by the resident medical officers that a much larger supply was called for. Having no appliances in this station for manufacture on a large scale, in accordance with a Government order, I went to Madras to see if this could be done in the Medical Store Department. After an inspection of the laboratories, I reported that such a quantity as a 1,000 lb. could be made, but a continuous manufacture would seriously interfere with the arrangements of the department. This quantity has now been ordered, and as soon as I have analysed a sample of the mixed powder, I will be prepared to go to Madras and superintend the manufacture of the first batch, which, according to Dr. Cornish's request, shall contain 40 grains of alkaloids to the fluid ounce.

6. When samples are taken for analysis from trees in the Government Cinchona Plantations, I have always endeavored to be present, so that observations as to situation, soil and habit of the trees might be noted. Most of my visits have been to Dodabetta where the Crown barks chiefly grow, but I have also been to Naduvatam, the home of the Red barks, and to the estates of Hooker and Wood at Pykara.

I should like it to be understood that all my analytical results are calculated in percentage on the air-dried barks as they are received.

7. The following table comprises 40 analyses showing the alkaloidal value of the principal species of cinchona growing in Government and other estates :—

—	Quinine.	Cinchonidine.	Quinidine.	Cinchonine.	Amorphous Alkaloids.	Total.
C. officinalis, Natural	2·71	1·28	·18	·45	·55	5·21
Do. Mossed	3·58	1·39	·16	·34	·60	6·07
Do. Renewed	4·11	·90	·13	·20	·60	5·94
C. Humboltiana (crispa) corky bark	2·24	1·55	trace	·49	·90	5·18
C. officinalis, var. angustifolia, Natural ..	3·97	1·32	·12	·12	·87	6·40
Do. do. Mossed ..	5·60	1·41	·33	·04	·97	8·35
Do. do. Renewed ..	4·91	·89	·38	·19	1·14	7·51
C. magnifolia, Natural	2·73	3·48	..	·70	·59	7·50
Do. Mossed	3·21	2·68	..	·21	·67	6·77
Do. Renewed	3·24	1·40	..	·47	·75	5·86
C. pubescens, Natural	3·32	1·93	..	·25	·50	6·00
C. Pitayensis, 12 years old..	2·83	·62	1·31	1·78	·38	6·92
Do. do.	1·86	·51	·89	2·10	·40	5·76
C. Ledgeriana, old tree, narrow leaf, cream-white flower	5·58	1·24	..	·23	·62	7·67
C. Ledgeriana, broad leaf, red flower	2·40	·50	trace	3·17	·91	6·98
Do. narrow leaf, cream-white flower..	3·28	·55	trace	1·85	1·14	6·82
Do. from South Wynaad	8·41	·34	·09	·15	·92	9·91
C. morada, 20 months	1·53	1·13	..	1·16	·96	4·78
C. verde, 20 months	1·32	·90	..	1·16	1·19	4·57

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GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following letter from M. A. LAWSON, Esq., Director, Government Cinchona Plantations, Parks and Gardens, Nílgiris, to the Secretary to Government, Revenue Department, dated Ootacamund, 9th July 1885, No. 28 :—

I have the honor to forward the Administration Report on the Government Cinchona Plantations, Nílgiris—viz., Dodabetta, Naduvatam, Hooker and Wood—for the official year 1884-85.

2. In accordance with the observations made in paragraph 14 of G.O., dated 17th September 1884, No. 1050, Revenue, the number of statements accompanying the "Report" have been reduced from 17 to 9.

3. SEASON AND RAINFALL—(*a*) *Dodabetta.*—Taken altogether the season was not unfavorable for carrying on the general work of the estate. The total amount of rain registered during the year was 61·20 inches, and was spread over 123 days, but of this quantity more than half, or 31·77 inches, fell during the two months of October and November. The early part of the year was unusually dry, and until the end of April, hardly any rain fell. In both May and June 5·0 inches were recorded, but the greater portion of this fell in a very short space of time, during one or two violent thunderstorms. The result of these heavy showers, falling upon the dusty earth, especially on the steeper slopes, was that the water ran off before it had time to sink into the ground beyond a few inches. July, again, was an exceedingly dry month, 1·87 inches only being recorded, and it was not till the end of August that the earth was sufficiently wetted to begin planting. In this month, 6·39 inches were spread over 20 days. The following month of September was very droughty and some of the plants which had been put out in the end of August died in consequence. October and November, however, were, as I have already mentioned, most unusually rainy, and the ground was thoroughly soaked and our failing springs re-established. Some damage was done on the steeper slopes through the earth being washed away; also in one of the ravines, two hundred trees or more were destroyed by some large rocks which were undermined, and on being dislodged from their site, crashed through a portion of the plantation immediately below them. The trees thus destroyed were some of the finest on the estate. After this heavy burst of rain, the weather continued propitious till the end of December, so that all the plants which had been put out were well established, and able to withstand the prolonged drought of the next five months.

(*b*) *Naduvatam.*—The rainfall on this estate for the past year was 92·96 inches, and was spread over 141 days. The earlier months of April and May received 3 and 4 inches respectively, and in June 7·34 inches fell. This saturated the ground, so that the planting, of which a very great deal had to be done, was commenced as early as possible. In July, 19·38 inches of rain fell, but at the same time this rain was accompanied with such violent storms of wind that the whole of the June planting, at least all those portions of it which lay at all exposed to the south-west, were destroyed and

have been committed by the pestilent sambur. I have ordered at a cost of Rs. 601-11-6 barbed wire, with which to entirely fence the estate, as I have found that trying to shoot the sambur down is of little avail; for as fast as one is shot another takes its place. Mr. Rhodes Morgan, Deputy Conservator of Forests in the Southern Circle, who has spent much time in patiently investigating the habits of these pests, informs me that the sambur is migratory, and that there is a constant stream of them passing at one time of the year from the plains to the hills, and at another time of the year from the hills to the plains. This, if correct, fully explains why there is no apparent decrease in their number notwithstanding the assiduity of the Government shikari.

I append no table to show the number of trees growing upon this estate, as, owing to the evil circumstances which have attended all planting operations, no accurate calculation is possible. I can only hope that next year, after the barbed fence has been put up, I may be able to give a more favorable report.

6. UPKEEP.—The weeding at proper times, deep tilling, the maintenance of the roadways, clearance of drains, &c., have been thoroughly well executed on all of the three first plantations. On the Wood estate much is still required to be done in this respect.

7. MANURE—(*a*) *Dodabetta.*—The whole of the manure collected during the last year had been used for those plots, which have been more recently planted, so that there was none available for the older trees. I have, however, been able to make arrangements by which the stock of manure will for the future be greatly increased, and next season I hope to have enough to enrich a large portion of the older parts of the estate.

(*b*) *Naduvatam.*—This estate is very badly off for manure and measures will have to be adopted to increase the supply.

(*c*) *Hooker* and (*d*) *Wood.*—Both of these estates are fairly well supplied by the cattle which are brought up by the coolies who work upon the plantations.

The proper storing up of manure has hitherto been sadly neglected, the subordinates on the estates having been utterly ignorant of the first principles upon which this branch of agriculture ought to be conducted. I have, therefore, during the past year paid special attention to this subject. Formerly the daily produce of the cattle sheds was thrown out in loose heaps, where half of the valuable ammoniacal salts, according to the season, were either evaporated or washed away. I have now had pits dug eight feet deep and the produce of the cattle sheds well trodden down when it is put in and, whenever necessary, watered. I have also at Naduvatam, Hooker and Wood, where the rainfall is excessive, put a roof of thatch over the pits. By these means I look to being able to turn out in all seasons exactly the sort of manure I wish to have—that is a short well-rotted compost very rich in ammoniacal salts.

8. SILOS.—During the last winter the cattle on the estates fell into a very miserable condition, owing to their not getting a sufficiency of proper food. I have, therefore, put up on the Dodabetta and Wood estates *silos* for the preservation of fodder during the wet season. I have had hitherto no personal experience of *silos*, but it seems to be an established fact that they are most valuable for storing up nutritious food in climates such as obtains on these hills, where herbage is plentiful only at those times when the preservation of it in a dry state would be impossible. I hope I shall be able to report next year that the experiment has proved successful.

9. NURSERIES.—Owing to the small demand there is now on the part of the public for cinchona plants, I have reduced the number of nurseries on all the estates to one a piece. This is ample for the requirements of the plantations and will also suffice to accommodate 100,000 of each of the more commonly grown varieties, should a demand for plants again arise. Last year some 1,000,000 seedlings were thrown away as useless.

There is still a small demand for seed, the varieties which were chiefly sought after last year being *C. succirubra* and *C. pubescens*. A complaint was received a short time ago from a gentleman that an order he had given had not been properly attended to, but upon investigation it turned out to be due to his having been confused by the names *C. pubescens* and *C. robusta*. I therefore give below the nomenclature as understood by this department, with the view of preventing a similar disappointment in the future.

There are two notable species of cinchona, viz. :—

(*a*) *C. succirubra.*
(*b*) *C. officinalis.*

These two species freely hybridize. Some of the hybrids approach more closely to *C. succirubra* while others approach more closely to *C. officinalis.*

C. robusta is the name which has been given by Doctor Trimen to *all* such hybrids.

C. pubescens is the name given on these hills to those hybrids which more closely approach *C. succirubra.* This form thrives best at a moderately low situation and in more sheltered places. It has the light green tender leaf of *C. succirubra* and the same habit of growth, but it is slightly more hardy.

C. magnifolia is the name given to those hybrids which more closely approach *C. officinalis.* This form grows well at high elevations and on exposed and rocky ground. The leaves in its most characteristic form are of a dark, rich glossy green; they are also tough and leathery, which enables it to resist better the evil effect of high winds. In its habit of growth it is similar to *C. succirubra*, but is much more sturdy.

Experiments which I have made on the keeping properties of cinchona seed show that it loses its germinating power if kept several months exposed to the air, but that if the air is excluded, the seed retains its vitality for a considerable time longer.

Perfectly fresh ripe seed ought to be a pale green color, but a short exposure to the air turns this to a dull red. This change is due to the oxidation of the fixed oils which the seed contains in great abundance. This change in color is by no means necessarily indicative of the seed having lost its germinating power.

10. CROP.—The total amount of bark taken from the trees on the estates during the past year was 118,017 lb. Besides this there remained over on 31st March 1884 92,526 lb., making a total of 210,543 lb. as specified in the table given below. Of this quantity 84,880 lb. was disposed of during the year, so that the balance at present in stock is 125,663 lb. :—

Name of Plantation.	Crown Bark.	Red Bark.	Total.
	LB.	LB.	LB.
Dodabetta	99,874	...	99,874
Naduvatam	27,580	45,775	73,355
Hooker	100	14,300	14,400
Wood	900	22,014	22,914
Total ...	128,454	82,089	210,543

11. BUILDINGS AND REPAIRS—*New Works.*—The only new building put up during the year was a set of cooly lines at Naduvatam. These were erected at some distance from the new Bark shed at a cost of Rs. 270-5-7. The smallness of the cost was due to the materials used in building the lines being taken from the old jail which had just before been dismantled.

Repairs.—The usual annual repairs to all the permanent buildings were carried out at a cost of Rs. 1,170-6-2, distributed as follows :—

	RS.	A.	P.	RS.	A.	P.
Naduvatam	431	3	9			
Dodabetta	466	6	2			
Hooker	13	6	6			
Wood	259	5	9			
				1,170	6	2

For want of better accommodation, the cattle shed near the jail at Dodabetta was converted into a store-room for bark. At Wood the Overseer's quarters received repairs

which they sadly needed, and the drying shed was done up. At Naduvatam the old drying and packing shed was pulled down as the centre wall had given way and it was thought best to demolish it to prevent further damage.

12. GENERAL REMARKS—*Staff of Subordinate Officers.*—Great changes have been made during the past year in the staff of subordinate officers employed on the estates and in the head office.

(*a*) *Dodabetta.*—In the early part of the year Mr. T. Narrainasawmi Naidu, Assistant Superintendent of this Plantation, and who for the last twenty years has most worthily carried on the work of the different positions which he has occupied, suddenly fell sick of an acute rheumatism, which necessitated his applying for extended leave. Much as I regretted the loss of his valuable services, I felt bound to comply with his request, and I accordingly granted him furlough for two years, and I appointed Mr. E. Collins, who for some time past had been acting on the estate as Sub-Overseer, to officiate in his stead. In December last, however, owing to the suspension of the Head Overseer of Naduvatam, I transferred Mr. E. Collins to Naduvatam to act in his place, and recalled Mr. T. Narrainasawmi Naidu to officiate again in his former post.

(*b*) *Naduvatam.*—I regret to have to report that very grave cases of dishonesty were brought against Mr. Hillier, the Head Overseer of this estate, and that these charges have been established in a Court of Law. Mr. Hillier was convicted and sentenced to two years' imprisonment. Upon investigation little doubt could be entertained but that several of his subordinates had been in collusion with him, especially *Pudmanaba Naidu* the Sub-Overseer, and whom I have in consequence dismissed from the Government service. His post has been filled up by Sashachullum Naidu formerly acting Sub-Overseer at Dodabetta, and his place at Dodabetta has been filled by Mr. A. McDonald.

(*c*) *Hooker.*—The subordinate officers on the estate remain the same as heretofore.

(*d*) *Wood.*—The Sub-Overseer in charge of this estate at the beginning of last year was Mr. Burrows, but I was so much dissatisfied with the character of his work that I caused him to apply for two years' furlough and, in the meantime, I have put into his place Mr. M. Collins, a brother of Mr. E. Collins, and who for some years back had been acting partly as Storekeeper and partly as Assistant Overseer on the Naduvatam estate.

(*e*) *Head Office.*—The Manager of this office was prosecuted at Coimbatore last February for having participated in the Hillier frauds and was convicted by the judge who tried the case. He was, however, set free on an appeal to the High Court at Madras. Nevertheless I dismissed him from Government service and appointed in his place Mr. Donald Campbell, who had previously been Head Accountant in the Collector's office.

These changes necessarily caused a great deal of confusion in the department for a time, but I am glad to be able to report that they are resulting in an accuracy of recording official matters and in an honesty in transacting estate affairs, which did not exist before.

13. FUEL SUPPLY.—In my last year's report, paragraph 80, I stated that the sholas upon which the estates had hitherto been dependent for fuel were nearly exhausted, and that I proposed replanting the old sholas with *Eucalyptus* and *Acacia melanoxylon.* This was in a great part done, but owing to the unseasonableness of the weather immediately after the planting had been effected, nearly the whole of the trees died out. I do not now intend making any provision for a fresh supply of fuel trees as I have recently learned that the Forest Department will be able to give all that is needed by the estate at a reasonable cost close at hand.

14. LABOR.—I am happy to say that I have been able, at last, to do away with the system of paying the maistries on the Naduvatam and Hooker estates a commission on the earnings of the coolies employed. The maistries are now paid fixed salaries only. This alteration has been made possible during the last year only on account of the great decrease which has occurred in the demand for labor in the Wynaad.

15. THE QUINOLOGIST DEPARTMENT.—Mr. Hooper was appointed last summer by the Secretary of State for India to act as Quinologist. He arrived in Madras last October. He commenced work immediately and within a fortnight of his arrival had so far equipped his laboratory that he was able to begin the analyses of the Government barks. Mr. Hooper has submitted a report on the work he has done during the last half-year. It is full of interesting matter and argues the possession of great professional skill and industry on his part. It will be seen from the report that Mr. Hooper has not confined himself to the study of the cinchona barks only, but that he has also investigated the properties of many other products of economic interest.

One of the first things which Mr. Hooper turned his attention to was the manufacture on a small scale of the liquid extract of cinchona as originally devised by Dr. DeVrij of the Hague. A gallon of this preparation was sent to Dr. Cornish, the Surgeon-General, for experimentation, and just before he left for England Dr. Cornish reported in very favorable terms upon its therapeutic and keeping value. In consequence of this report, Government have ordered Mr. Hooper to produce 1,000 lb. weight of this fluid extract with the view of having it still more fully tested. Mr. Hooper will, therefore, as soon as possible, carry out these instructions in the laboratories connected with the Medical Store Department in Madras.

The advantage of the above-mentioned preparation over other kinds of febrifuge is the great economy and simplicity of its production. So simple, indeed, is the method that any druggist and chemist could, so long as he had a bark of a determined alkaloidal value, make the extract without any difficulty in his own shop.

If the liquid extract continues to hold the high reputation which has been given to it by Dr. Cornish, and I see no reason to doubt its doing so, Government will have at last as cheap a febrifuge as can possibly be turned out.

Dr. Cornish in some sense speaks rather disparagingly of the febrifuge which is manufactured by Government in Northern India. He says that it produces nausea. Mr. Hooper has analyzed samples of the Darjeeling febrifuge and regards it not unfavorably as a drug; and the experience of those who have told me that they have administered it to their servants and others, when on tour in feverish parts of the country, leads me to regard it as much better than it is commonly believed to be, though no doubt it may frequently cause disturbance in particular constitutions when given in large doses. Of course, if it were possible, one would desire to administer nothing but the pure alkaloids; but the great cost of manufacturing these forbids their being used on any large scale, and one must therefore be content with placing within reach of the poorer classes a supposed slightly inferior but much cheaper commodity.

At the request of Messrs. Arbuthnot and Co. of Madras, 2,000 lb. of bark were sent to Calicut to be there manufactured into quinine and febrifuge by their expert, Dr. Cleaver. The results, so far as they have gone, are not very satisfactory; and no account has yet been given of the proportionate amount of the alkaloids which have been extracted from the bark. But I do not see why further experience should not be productive of better results. There can, I think, be now little doubt that the cinchona alkaloids can be isolated as well and much more cheaply in India as in any other part of the world.

16. MAPS OF ESTATES.—I enclose three maps showing the amount of planting and coppicing which has been done, since the year 1882, on the Dodabetta, Naduvatam and Hooker estates.

ENCLOSURES.

Letter from D. HOOPER, Esq., F.C.S., Government Quinologist, Ootacamund, to the Director, Government Cinchona Plantations, Parks and Gardens, Nilgiris, dated Ootacamund, 6th July 1885.

I have the honor to make the following report on the analytical work conducted in the Government Laboratory for the half-year ending 31st March 1885.

2. I arrived at Madras on the 6th October 1884 and proceeded to Ootacamund. A building had been provided for me, which, after certain adaptations and fixtures made in it, became converted into a moderately efficient laboratory. The chemicals and apparatus which I had used in the special study at The Hague were brought out with me; I was therefore able to commence work about a fortnight after arrival.

3. My appointment was made with a view to advance the practice of cinchona culture at the Government Plantations "by analysing the bark of a very large number of their trees in different stages of their growth, when treated under different systems, and when grown at different altitudes."

4. The periodical sales of bark which are now made by public auction at Madras have been accompanied with analyses of the various samples. In November, 18 samples were reported upon, and for the February and March sales four samples were tested. Of these, 16 were crown and 6 red bark. The percentages of sulphate of quinine in the former were —

Natural, average of	5	analyses	...	3·18
Mossed	3	"	...	4·09
Renewed	4	"	...	4·22
Branch	3	"	...	1·60
Root,	one	analysis	...	4·40

The percentages of total alkaloids in the Red barks were Natural 5·10, Mossed 6·87, Renewed 6·81, Branch 4·45, 3·07, Root 8·17.

These analyses were printed and circulated amongst the buyers at the sales, and have enabled a reserve price to be placed on the various lots.

5. With reference to paragraph 62 of your last annual report, Dr. W. R. Cornish, the then Surgeon-General, suggested that a liquid preparation might be made of the red bark, which you say does not command a remunerative price in the market, and the preparation might be similar to those of DeVrij, Schacht, Paul and Umney advertised in the British Medical papers. When in Holland I was conversant with the process for making "Cinchona Liquida" of Dr. J. E. DeVrij, the well-known Quinologist, and had made a sample before Dr. Cornish's suggestion arrived. At his request a further supply of a gallon was made, and this was distributed to various dispensaries in the Presidency, in districts where fever was most prevalent. Such good reports on the efficacy of the liquid extract were sent in by the resident medical officers that a much larger supply was called for. Having no appliances in this station for manufacture on a large scale, in accordance with a Government order, I went to Madras to see if this could be done in the Medical Store Department. After an inspection of the laboratories, I reported that such a quantity as a 1,000 lb. could be made, but a continuous manufacture would seriously interfere with the arrangements of the department. This quantity has now been ordered, and as soon as I have analysed a sample of the mixed powder, I will be prepared to go to Madras and superintend the manufacture of the first batch, which, according to Dr. Cornish's request, shall contain 40 grains of alkaloids to the fluid ounce.

6. When samples are taken for analysis from trees in the Government Cinchona Plantations, I have always endeavored to be present, so that observations as to situation, soil and habit of the trees might be noted. Most of my visits have been to Dodabetta where the Crown barks chiefly grow, but I have also been to Naduvatam, the home of the Red barks, and to the estates of Hooker and Wood at Pykara.

I should like it to be understood that all my analytical results are calculated in percentage on the air-dried barks as they are received.

7. The following table comprises 40 analyses showing the alkaloidal value of the principal species of cinchona growing in Government and other estates :—

—	Quinine.	Cinchonidine.	Quinidine.	Cinchonine.	Amorphous Alkaloids.	Total.
C. officinalis, Natural	2·71	1·28	·18	·45	·55	5·21
Do. Mossed	3·58	1·39	·16	·34	·60	6·07
Do. Renewed	4·11	·90	·13	·20	·60	5·94
C. Humboltiana (crispa) corky bark	2·24	1·55	trace	·49	·90	5·18
C. officinalis, var. angustifolia, Natural	3·97	1·32	·12	·12	·87	6·40
Do. do. Mossed	5·60	1·41	·33	·04	·97	8·35
Do. do. Renewed	4·91	·89	·38	·19	1·14	7·51
C. magnifolia, Natural	2·73	3·48	..	·70	·59	7·50
Do. Mossed	3·21	2·68	..	·21	·67	6·77
Do. Renewed	3·24	1·40	..	·47	·75	5·86
C. pubescens, Natural	3·32	1·93	..	·25	·50	6·00
C. Pitayensis, 12 years old	2·83	·62	1·31	1·78	·38	6·92
Do. do.	1·86	·51	·89	2·10	·40	5·76
C. Ledgeriana, old tree, narrow leaf, cream-white flower	5·58	1·24	..	·23	·62	7·67
C. Ledgeriana, broad leaf, red flower	2·40	·50	trace	3·17	·91	6·98
Do. narrow leaf, cream-white flower	3·28	·55	trace	1·85	1·14	6·82
Do. from South Wynaad	8·41	·34	·09	·15	·92	9·91
C. morada, 20 months	1·53	1·13	..	1·16	·96	4·78
C. verde, 20 months	1·32	·90	..	1·16	1·19	4·57

No. 472 Ed/ Augt 17. 1885.

Pr Cho. 7288

Official Memo: from Revenue dept. No. 460 d/ 15-8-85 inquiring whether the enclosed buildings at Naduvatam have been completed and whether any portion still remains to be completed.

Referred to the E.E. Nilgiri Division for early report.

(Sd/) G.T.S. W

To,

The E.E. Nilgiri Dn.

with paper in ref

17/8/85

Pyk. 7877.

Inc. Cl. No. 1 Vol 248 fo

27/7/83

Encls (1)

No. 378 Ed/ July 27th 1885.

Memorandum.

In reply to Memo: from the Revenue dept. No. 408 of 17th July 1885, the undersigned has the honour to state that the Expenditure incurred from the Provincial P.W. Budget in 1884/85, on account of Cinchona buildings in the Nilgiris &c was as follows:—

Drying shed and bark store for Cinchona plantation at Nadukattam	158:14:8
Repairing doors of the new store shed at Nadukattam	43:9:0
Total Rs	1602-7-8

(9) CSS

(5) Jo Ft

The Rev: dept

Pol. Sec.

Ag. 8. 7877.

GENERAL.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated June, 24th.

Recd. *Encl.*

G.O., 24th June 1884, No. 1581 W.

JUNE.

Reserve

Distribution of the amount of the — with Government for 1884-85.

B.—STATEMENT of Requirements on account of Provincial Incomplete Works for 1884-85 and of New Works sanctioned but not yet commenced.

Division.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for		Amount allotted		Item No.	Head of reserve from which the appropriation is made.
							For Incomplete Works.	For New Works.	For Incomplete Works.	For New Works.		
1	2	3	4	5	6	7	8	9	10	11	12	13
		PROVINCIAL.	RS.		RS.	RS.	RS.	RS.	RS.	RS.		
		Minor Works.										
Vizagapatam ..	1	Constructing a treasury-room in the taluk cutcherry at Vizanagrum.	1,620	G.O., No. 2138 W., dated 29th August 1884.	901	719	719	..	719	..	1	From Provincial reserve.
Godávari Eastern	2	Constructing quarters for the hospital assistant attached to the Public Works dispensary at Bhadráchalam.	560	G.O., No. 2955 W., dated 1st December 1884.	53	507	507	..	507	..	2	Do. do.
Bellary ..	3	Collector's printing office at Bellary ..	1,622	G.O., No. 767 W., dated 30th March 1885.	..	1,622	..	1,622	..	..	3	No funds available.
Do. ..	4	Compound-wall to the Collector's cutcherry at Bellary.	47,540	G.O., No. 1134 W., dated 6th April 1884. G.O., No. 507 W., dated 6th March 1885.	..	..	..	1,700	..	..	4	Do. do.
Cuddapah ..	5	Improvements to the Government high school at Cuddapah.	2,000	G.O., No. 2117 W., dated 27th August 1884.	1,424	576	1,000	..	1,000	..	5	Revised estimate is promised. From Provincial reserve.
Do. ..	6	Providing a wrought-iron strong-room for the taluk cutcherry at Rayachóti.	2,471	G.O., No. 2456 W., dated 4th October 1884.	2,000	471	471	..	..	..	6	Appropriation not necessary under code paragraph 2293 III.
Nilgiri ..	7	Furnishing clerks' quarters at Ootacamund ..	1,870	G.O., No. 527 W., dated 7th March 1885.	..	1,870	..	1,870	..	2,150	7	Extra allotment given to cover additional work. From Provincial reserve.
Chingleput ..	8	Constructing a compound-wall for the Roman Catholic burial ground at Trippasore.	1,300	G.O., No. 747 W., dated 19th March 1884.	285	1,015	1,015	..	1,015	..	8	From Provincial reserve.
Presidency ..	9	Improvements to the women's hospital at the penitentiary.	2,120	G.O., No. 982 W., dated 16th April 1884.	1,929	191	191	..	..	..	9	Appropriation not necessary.
Do. ..	10	Reconstructing out-houses at the general hospital, Madras.	440	.....	6	434	434	..	..	..	10	Do. do.
Tanjore ..	11	Improvements to Tiruvadamarudúr palace ..	2,095	G.O., No. 946 W., dated 7th April 1884.	1,639	456	456	..	..	..	11	Do. do.
Public Works Workshops.	12	Dismantling water cistern and supplying stand pipes, &c.	252	.....	114	138	138	..	..	..	12	Do. do.
		Total ..	..		..	..	4,931	5,192	3,241	2,150		
		Major Works.										
Ganjam ..	1	Constructing a Senior Assistant Collector's cutcherry at Berhampore.	6,900	G.O., No. 2902 W., dated 15th October 1883.	4,505	2,395	2,395	..	2,395	..	1	From Provincial reserve.
Do. ..	2	Constructing a school-house at Tekaly Raghunadhapore.	3,530	G.O., No. 1436 W., dated 18th June 1880.	1,107	2,423	2,423	..	2,423	..	2	Do. do.
Vizagapatam ..	3	Constructing a second-class taluk cutcherry at Anakapalli.	9,310	G.O., No. 2899 W., dated 15th October 1883.	4,909	4,401	1,401	..	..	..	3	In addition to Rs. 3,000 provided in the budget. No funds available.
Do. ..	4	Providing additional accommodation to the huzur treasury at Vizagapatam.	8,870	G.O., No. 2138 W., dated 29th August 1884.	3,958	4,912	4,912	..	4,912	..	4	From Provincial reserve.
Do. ..	5	Iron safes for taluk cutcherries in the Vizagapatam district.	6,000	G.O., No. 2680 W., dated 24th September 1883.	128	5,872	5,872	..	5,872	..	5	Do. do.
Do. ..	6	New Potinghy ghât	4,25,391	G.O., No. 3255 W., dated 16th November 1883.	4,24,108	1,283	5,000	..	5,000	..	6	To meet excess over estimate sanctioned by Superintending Engineer. From Provincial reserve.
Godávari Eastern	7	Constructing a dispensary at Bhadráchalam ..	3,696	G.O., No. 4514 W., dated 26th November 1878.	17	4,219	4,219	..	4,219	..	7	From Provincial reserve.
Do. ..	8	Residence for the Superintending Engineer at Dowlaishweram.	17,300	G.O., No. 1911 W., dated 6th August 1884.	11,136	6,164	6,164	..	6,164	..	8	Do. do.
Do. ..	9	Constructing an office building at Dowlaishweram for the Head works and Eastern subdivisions of the Godávari Eastern division.	5,725	G.O., No. 1454 W., dated 11th June 1884.	4,255	1,470	1,470	..	1,470	..	9	Do. do.
Do. ..	10	Residence for the Executive Engineer at Dowlaishweram.	12,500	G.O., No. 788 W., dated 31st March 1885.	7,914	4,586	4,586	..	4,586	..	10	Do. do.
Godávari Western.	11	Constructing a third-class taluk cutcherry at Pentapad.	7,200	G.O., No. 1311 W., dated 8th May 1875.	6,603	597	597	..	597	..	11	Do. do.
Kistna Eastern.	12	Store building at Bezváda	9,130	G.O., No. 1777 W., dated 21st July 1884.	7,890	1,240	1,240	..	1,240	..	12	Do. do.
Bellary ..	13	Deputy Collector's cutcherry at Adóni ..	6,460	G.O., No. 2492 W., dated 5th September 1883.	3,911	2,549	2,500	..	2,500	..	13	Do. do.
Do. ..	14	Head Assistant Collector's cutcherry at Hospet	4,309	G.O., No. 581 W., dated 12th March 1885.	3,515	794	794	..	794	..	14	Do. do.
Do. ..	15	Adding a verandah to the taluk cutcherry at Rayadrug.	3,490	G.O., No. 4001 W., dated 14th October 1878.	2,142	1,348	1,348	..	1,348	..	15	Do. do.
Do. ..	16	Head Assistant Collector's cutcherry at Penukonda.	16,682	G.O., No. 613 W., dated 14th March 1885.	5,922	10,760	10,000	..	10,000	..	16	Do. do.
Do. ..	17	Sub-divisional officer's bungalow at Anantapur.	4,772	G.O., No. 896 W., dated 15th April 1885.	3,789	983	983	..	983	..	17	Do. do.
Cuddapah ..	18	Improvements to the district court-house at Cuddapah.	8,062	G.O., No. 2925 W., dated 26th November 1884.	7,647	475	415	..	..	..	18	Appropriation not needed.
Kurnool ..	19	Sub-divisional officer's bungalow at Kumbum.	3,000	G.O., No. 1549 W., dated 4th June 1883.	2,521	1,534	1,534	..	1,534	..	19	From Provincial reserve. Revised estimate awaited.
Coimbatore ..	20	Constructing a residence for the Head Assistant Collector at Pollachi.	14,365	G.O., No. 1610 W., dated 27th June 1884.	10,980	3,385	3,385	..	3,885	..	20	From Provincial reserve.
West Coast ..	21	Constructing a district munsif's court-house at Coondapoor.	12,380	G.O., No. 2068 W., dated 8th August 1879. G.O., No. 1375 W., dated 11th May 1883.	11,762	618	1,230	..	1,230	..	21	Excess within Superintending Engineer's power of sanction. From Provincial reserve.
Do. ..	22	Constructing a district munsif's court-house at Puttur.	17,140	G.O., No. 3080 W., dated 31st October 1883.	16,228	912	912	..	912	..	22	From Provincial reserve.
Do. ..	23	Sea-customs house at Malpi	6,560	G.O., No. 109 W., dated 14th January 1884.	6,245	315	640	..	640	..	23	Do. do.
Do. ..	24	Improvements to the taluk cutcherry at Puttúr.	4,880	G.O., No. 2004 W., dated 15th August 1884.	1,500	3,380	3,380	..	3,380	..	24	Do. do.
Do. ..	25	Head Assistant Collector's residence at Coondapoor.	15,730	G.O., No. 2413 W., dated 30th September 1884.	1,760	13,970	3,970	..	..	..	25	In addition to Rs. 10,000 provided in the budget. No funds available.
Do. ..	26	Law courts at Calicut	95,240	G.O., No. 1553 W., dated 20th June 1884.	59,075	36,165	12,745	..	..	..	26	In addition to Rs. 23,420. No funds available.
Do. ..	27	Public offices at Ponáni	74,521	G.O., No. 2597 W., dated 23rd October 1884.	6,000	68,521	14,000	..	..	..	27	In addition to Rs. 29,960 provided in the budget. No funds available.

B.—Statement of Requirements on account of Provincial Incomplete Works for 1884-85 and of New Works sanctioned but not yet commenced—*cont.*

Division.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for		Amount allotted		Item No.	Head of reserve from which the appropriation is made.
							For Incomplete Works.	For New Works.	For Incomplete Works.	For New Works.		
1	2	3	4	5	6	7	8	9	10	11	12	13
		PROVINCIAL—*cont.*	RS.		RS.	RS.	RS.	RS.	RS.	RS.		
		Major Works—cont.										
West Coast ..	28	Sea-customs house at Tanúr	2,960	G.O., No. 386 W., dated 13th February 1884.	585	2,375	2,375	..	2,375	..	28	From Provincial reserve.
Do. ..	29	District munsif's court at Wootapolliem ..	2,990	G.O., No. 2395 W., dated 26th September 1884.	1,356	1,634	1,634	..	1,634	..	29	Do. do.
Nilgiri ..	30	New road of approach to Stonehouse ..	16,225	G.O., No. 2190 W., dated 5th September 1885.	13,806	2,419	2,419	..	2,419	..	30	Do. do.
Do. ..	31	Improvements to Chinchona Villa at Ootacamund.	4,240	G.O., No. 238 W., dated 29th January 1885.	2,490	1,750	1,750	..	1,750	..	31	Do. do.
Do. ..	32	Charing Cross bridge, Ootacamund ..	9,300	G.O., No. 1183 W./A, dated 9th May 1884.	7,076	2,224	2,224	..	2,224	..	32	Do do.
Do. ..	33	Elk Hill cutting at Ootacamund	14,190	G.O., No. 249 W., dated 2nd February 1885.	11,032	3,158	3,158	..	3,158	..	33	Do. do.
Do. ..	34	Improvements to Dodabetta reservoir ..	12,910	G.O., No. 261 W., dated 4th February 1885.	2,973	9,937	9,937	..	9,937	..	34	Do. do.
South Arcot ..	35	Additions to the Collector's cutcherry at Cuddalore.	8,528	G.O., No. 294 W., dated 26th January 1883.	6,441	2,087	2,087	..	2,087	..	35	Do. do.
North do. ..	36	Jail Superintendent's quarters at Vellore ..	31,500	G.O., No. 2208 W., dated 6th September 1884.	30,696	804	804	..	804	..	36	Do. do.
Do. do. ..	37	Cellular prison at Vellore	40,970	G.O., No. 3246 W., dated 14th November 1883.	34,819	3,151	605	..	605	..	37	In addition to Rs. 2546 provided in budget. From Provincial reserve.
Presidency ..	38	Additions and improvements to the Stationery and Stamp office at Madras.	24,240	G.O., No. 695 W., dated 14th March 1884.	21,354	2,886	2,886	..	2,886	..	38	From Provincial reserve.
Do. ..	39	Adding a chancel to Saint Mary's church, Fort St. George.	6,490	G.O., No. 157 W., dated 19th January 1885.	5,637	853	853	..	853	..	39	Do. do.
Do. ..	40	Planking the ceilings of the nave and the aisles of St. George's Cathedral, Madras.	3,452	G.O., No. 1395 W., dated 4th June 1884.	1,517	1,935	257	..	..	..	40	In addition to Rs. 1,675 provided in budget. No funds available.
Do. ..	41	Sinking an Artesian well at Madras ..	15,475	G.O., No. 333 W., dated 12th February 1885.	13,193	2,282	2,282	..	2,282	..	41	From Provincial reserve.
Chingleput ..	42	Remodelling the lightning conductor and constructing drains at the Government House, Guindy.	3,975	G.O., No. 1441 W., dated 9th June 1884.	3,873	102	212	..	..	..	42	Appropriation not necessary.
Tinnevelly ..	43	Head Assistant Collector's office at Shermadevi.	10,275	G.O., No. 1353 W., dated 12th May 1879.	7,002	3,273	3,000	..	3,000	..	43	From Provincial reserve.
Madura ..	44	District munsif's court at Sivaganga ..	14,900	G.O., No. 2266 W., dated 14th August 1883.	14,248	652	652	..	652	..	44	Do. do.
Do. ..	45	Deputy tahsildar's cutcherry at Nellacottah.	11,828	G.O., No. 515 W., dated 1st February 1878.	3,804	8,024	4,795	..	..	..	45	In addition to budget grant, Rs. 3,228. No funds available.
Do. ..	46	Do. do. at Oothamapoliem	11,993	Do. do.	4,500	7,493	3,500	..	..	..	46	Do. do. of Rs. 3,993. No funds available.
Do. ..	47	Do. do. at Vedasandur.	11,828	Do. do. ..	4,497	7,331	3,502	..	..	..	47	Do. do. of Rs. 3,828. No funds available.
Tanjore ..	48	Divisional office at Tanjore	11,920	G.O., No. 944 W., dated 7th April 1884.	11,482	438	438	..	..	..	48	Appropriation not necessary.
Do. ..	49	Improving the district munsif's court at Máyavaram.	3,345	G.O., No. 2712 W., dated 3rd November 1884.	1,696	1,649	1,649	..	1,649	..	49	From Provincial reserve.
Negapatam ..	50	Improvements to the taluk cutcherry at Negapatam.	6,700	G.O., No. 188 W., dated 23rd January 1885.	..	6,700	..	..	..	6,700	50	Do. do.
Architect ..	51	Providing new record racks for the Revenue Board office.	6,047	G.O., No. 900 W., dated 15th April 1885.	5,255	792	792	..	792	..	51	Do. do.
Do. ..	52	Erecting a tomb over the grave of the late Right Honorable W. P. Adam.	11,908	G.O., No. 1532 W., dated 19th June 1884.	11,410	498	498	..	..	..	52	Appropriation not necessary.
Do. ..	53	Additions and improvements to School of Arts, Madras.	21,193	G.O., No. 2132 W., dated 29th August 1884.	16,963	4,230	4,230	..	4,230	..	53	From Provincial reserve.
Do. ..	54	Constructing a bridge over the junction canal near the Senate House at Madras.	43,875	G.O., No. 373 W., dated 14th February 1885.	42,771	1,104	1,104	..	1,104	..	54	Do. do.
Do. ..	55	Improvements to the South Beach promenade.	1,04,618	G.O., No. 640 W., dated 16th March 1885.	86,089	18,529	18,529	..	10,000	..	55	Do. do.
Do. ..	56	Do. to family quarters, Civil Engineering College.	3,872	G.O., No. 611 W., dated 14th March 1885.	..	..	..	2,000	..	2,000	56	Do. do.
		Total ..	..		..	..	1,74,287	2,000	1,20,025	8,700		
		Registration.										
Ganjam ..	1	Sub-registrar's office at Narasannapet ..	1,650	G.O., No. 2305 W., dated 7th September 1882.	855	795	795	..	795	..	1	From Provincial reserve.
Godávari, Eastern	2	Registrar's office at Cocanada	4,700	G.O., No. 352 W., dated 1st February 1883.	2,933	1,767	1,767	..	1,767	..	2	Do. do.
Do. ..	3	Adding a record-room to the taluk cutcherry at Peddapur for the sub-registrar's office.	1,940	G.O., No. 2065 W., dated 30th July 1883.	1,340	600	600	..	600	..	3	Do. do.
Godávari, Western.	4	Sub-registrar's office at Pentapad	2,710	G.O., No. 556 W., dated 20th February 1883.	1,835	875	875	..	875	..	4	Do. do.
Kistna, Eastern.	5	Do. do. at Gunnavaram.. ..	2,170	G.O., No. 2514 W., dated 7th September 1883.	140	2,030	2,030	..	2,030	..	5	Do. do.
Kistna, Western.	6	Do. do. at Narasampet ..	2,650	G.O., No. 509 W., dated 15th February 1883.	2,069	581	581	..	581	..	6	Do. do.
Do. ..	7	Do. do. at Répalli	2,580	G.O., No. 554 W., dated 19th February 1883.	1,436	1,144	1,144	..	1,144	..	7	Do. do.
Do. ..	8	Do. do. at Tenali	2,520	Do. do.	1,914	606	606	..	606	..	8	Do. do.
Nellore ..	9	Do. do. at Kandukur	2,455	G.O., No. 2738 W., dated 20th October 1882.	..	2,455	..	2,455	..	..	9	No funds available.
Cuddapah ..	10	Do. do. at Proddutur	2,240	G.O., No. 1497 W., dated 28th May 1883.	263	1,977	1,977	..	1,977	..	10	From Provincial reserve.
Kurnool ..	11	Do. do. at Cumbum	2,183	G.O., No. 2460 W, dated 6th October 1884.	419	1,764	1,764	..	1,764	..	11	Do. do.
Do. ..	12	Adding a record-room to the sub-registrar's office at Kurnool.	1,290	G.O., No. 1456 W., dated 11th June 1884.	452	838	48	..	..	..	12	Rs. 790 provided in budget. No funds available.
Bellary ..	13	Sub-registrar's office at Huvinahadgalli ..	2,422	G.O., No. 1229 W., dated 14th May 1884.	1,306	1,116	1,116	..	1,116	..	13	From Provincial reserve.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

Read—the following papers :—

From the Superintending Engineer,	I Circle,	dated	27th May 1885,	No.	56 C.
,, ,, ,,	II ,,	,,	16th ,, ,,	,,	56 G.L.
,, ,, ,,	II ,,	,,	12th June ,,	,,	617 K.S.
,, ,, ,,	III ,,	(five statements) dated 4th May 1885.			
Telegram from the Superintending Engineer,	III Circle,	dated	20th May 1885.		
,, ,, ,,	IV ,,	,,	16th ,, ,,		
,, ,, ,,	IV ,,	,,	27th June ,,		
From the Superintending Engineer,	V Circle,	dated	15th May 1885,	No.	651.
,, ,, ,,	V ,,	,,	15th ,, ,,	,,	648.
,, ,, ,,	V ,,	,,	24th June ,,	,,	1202.
,, ,, ,,	VI ,,	,,	21st May ,,	,,	32 C.T.J.
,, Consulting Architect to Government,	,,	11th ,, ,,	,,	191.	
,, ,, ,,	,,	19th ,, ,,	,,	244.	

Order—dated 1st July 1885, No. 1533 W., Public Works.

The statements printed with these proceedings exhibit the demands made by Superintending Engineers for Provincial minor and incomplete works, repairs, and tools and plant.

2. The demands under Repairs are as follows :—

	Rs.
Civil Buildings...	82,054
Communications	49,100
Miscellaneous Public Improvements	7,421
Total ...	1,38,575

3. The total allotments, as shown in statement A, are :—

	Rs.
Civil Buildings	85,360
Communications	72,640
Miscellaneous Public Improvements	6,730
Total ...	1,64,730

4. The Superintending Engineer, IV Circle, made no demands in his statement under Repairs and Tools and Plant; but he has since explained that the grants made to his circle under those heads at pages 18 and 47 of the final issue of the Provincial budget for 1885-86 are not susceptible of reduction. The allotments made to the I and V Circles are less than the demands; and, if the grants are hereafter found to be inadequate, endeavours will be made to supplement them. Expenditure should, however, be restricted to absolutely necessary requirements.

5. The budget provision under Repairs amounts to Rs. 2,24,175; and the difference, Rs. 59,445, between that sum and the allotment now made is transferred to the reserve under Civil Buildings.

SECRETARIAT MADRAS PUBLIC WORKS

6. The total demands under Tools and Plant aggregate Rs. 22,100; and the total allotments, after providing for the requirements of the IV Circle, amount to Rs. 29,600. The provision in the budget for expenditure in India under this head is Rs. 51,115; and the difference, Rs. 21,515, between that sum and the allotment now made is transferred to the reserve under Civil Buildings.

7. The amount reserved in the budget for incomplete and minor works was Rs. 1,18,930, but subsequent modifications have reduced the sum to Rs. 1,07,123. The total amount available for distribution is therefore:—

	Rs.
Reserve with Government	1,07,123
Transferred from Repairs	59,445
Do. from Tools and Plant...	21,515
Total ...	1,88,083

8. The demands received are as follows:—

Incomplete minor works	4,931	
Do. major works	1,74,287	
Do. Registration works	24,141	
Do. Police works...	19,423	
Total incomplete works ...		2,22,782
New minor works...	5,192	
Do. major works...	2,000	
Do. Registration works...	2,455	
Do. Police works	8,153	
Total new works ...		17,800
Lump sum grants for minor works		8,425
Total demand ...		2,49,007

9. The allotments granted are shown below:—

Incomplete minor works	3,241	
Do. major works	1,20,025	
Do. Registration works	23,407	
Do. Police works..	18,534	
Total incomplete works ...		1,65,207
New minor works...	2,150	
Do. major works	8,700	
Do. Police works	1,725	
Total new works ...		12,575
Lump sum grants for minor works as per statement A ...		8,425
Total allotments		1,86,207

10. In the case of several works entered in the list, demands are made for grants in addition to allotments already provided in the budget. The demands in such cases have not been complied with under existing financial pressure; but, if necessary, endeavours will be made to provide additional funds later in the year.

11. Grants have been provided for only two minor new works, viz., "Furnishing clerks' quarters at Ootacamund" (Rs. 2,150, a completed work), and "Constructing police huts at Perumallur" (Rs. 1,725, in progress). The action of the Executive Engineer, North Arcot division, in commencing the latter work in anticipation of an allotment of funds, was irregular.

12. Under Major New Works Rs. 2,000 have been allotted for improvements to the family quarters attached to the civil engineering college at Madras, a work commenced by the Consulting Architect to Government in anticipation of sanction. The

irregularity has been noticed in separate proceedings. A sum of Rs. 6,700 has also been provided for improvements in the Negapatam taluk cutcherry, a work urgently needed. The Superintending Engineer, VI Circle, will have it put in hand at once, and completed within the official year.

13. The statements printed at pages 18 and 47 of the final issue of the Provincial budget for 1885-86 are superseded by these proceedings.

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

To Superintending Engineers.
To the Consulting Architect to Government.
" Examiner, Public Works Accounts.
" Financial Department.
" Judicial "
" Educational "
" Public "
" Ecclesiastical "
" Revenue "

Exd. E. Fernandez.
Spare Copies

GENERAL.
ACCOUNT.

Govt. of {1885} Madras.

PUBLIC WORKS.

Dated July, 1st.

Recd. *Encl.*

G.O., 1st July 1885, No. 1533 W.

JULY.

Funds

Orders distributing — from the Provincial reserve.

PUBLIC WORKS SECRETARIAT MADRAS

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

No. 54.

READ—the following paper :—

No. 96.

Report to accompany the Revised Estimate of Rs. 38,220 *for erecting the Bark Drying Shed, Bark Store and Water Supply for the Chinchona Plantation at Naduvatam, in Nilgiri Division.*

The estimate on which the work is now being carried on is Rs. 31,074, which was sanctioned in G.O., No. 2975 W., dated 29th November 1881 ; the principal items of the excess (Rs. 7,146) are as follow :—

1 Detailed Estimate with Abstract.
1 Abstract Estimate.
1 Comparative Statement.
2 Plans.
1 Report.

	RS.
(1.) Rough-stone in chunam	213
(2.) Brick-work	1,731
(3.) Six iron trusses	1,560
(4.) Other iron and wood work	1,111
(5.) Earthwork for foundations and levelling ground	511
(6.) Four stand-pipes or hydrants	210
(7.) Blasting and removing rocks	168
(8.) Temporory shed for stores	300
(9.) Other petty items	167
(10.) Losses in brick-making	330
(11.) Contingencies and superintendence	845
Total Excess ...	7,146

2. The excess on item No. 1 is due to the extra foundation found necessary in carrying out the work. The excess on item No. 2 is due to the substitution of brick in chunam for brick in mud for all exposed portions of the work, the general collapse of brick-in-mud buildings at Naduvatam in last monsoon having shown this to be absolutely necessary. The excess on item 3 is the actual extra cost of getting the iron trusses, which were obtained from the Public Works Workshops ; they had been greatly under-estimated.

3. The excess on item No. 4, other wood and iron work, is simply due to the insufficiency of the rates previously estimated as suitable for such work at Naduvatam.

4. Items 5 to 10 have been found necessary to cover extra works not provided for in the original estimate.

5. The excess shown on item 11 may, to a large extent, be found unnecessary, but as the work is of an exceptional character in a peculiar locality, it is thought best to provide some margin against possible contingencies.

6. The following statement shows the proportion of the excess appertaining to each of the works :—

—	Original Estimate.	Revised Estimate.	Increase.
	RS.	RS.	RS.
(1.) Bark Drying Shed	17,400	21,719	4,319
(2.) Bark Store	11,390	13,779	2,389
(3.) Providing a cistern and cast-iron piping for water-supply	2,284	2,722	438
Total ...	31,074	38,220	7,146

7. With the above explanation the revised estimate of Rs. 38,220 is recommended for sanction. The Executive Engineer reports that the works are making good progress.

ERODE,
27th February 1883.

(Signed) J. BEATTY, Colonel, R.E.,
Superintending Engineer, Fourth Circle.

To the Chief Engineer, Public Works Department.

No. 55.

ORDER—dated 8th March 1883, No. 749 W., Public Works.

The revised estimate, amounting to Rs. 38,220, for constructing Chinchona buildings at Naduvatam, in the Nílgiri Division, is sanctioned.

2. The excess of Rs. 7,146 over the estimate for Rs. 31,074, sanctioned in G.O., No. 2975 W., dated 29th November 1881, is explained in the Superintending Engineer's report above recorded.

3. The expenditure to the end of 1881-82 amounted to Rs. 4,971, and the grant for the current official year stands at Rs. 18,374. Early application should be submitted next official year for the balance required to complete the work.

4. This sanction has been registered as Provincial No. 263 W. of 1882-83 and classified as Civil Buildings, Original Works. Provincial No. 102 W. of 1881-82 is cancelled.

(True Extract.)

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

To the Superintending Engineer, Fourth Circle, with six Enclosures.
„ Examiner, Public Works Accounts, with duplicate Abstract Estimate.
„ Revenue Department.

Exd. A. F. Goodall.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated March, 8th.

Read. *Encl.*

G.O., 8th March 1883, No. 749 W.

MARCH.

Nos. 54-55.

Chinchona Buildings

A revised estimate for constructing — at Naduvatam, in the Nílgiri Division, sanctioned.

PUBLIC WORKS SECRETARIAT MADRAS

Accompaniment to Proceedings No. **1581** *W., dated* **24th** *June* **1884.**

Statement showing amounts applied for and those granted under Imperial Military and Other Services.

STATEMENT A.

	AMOUNTS APPLIED FOR.								AMOUNTS GRANTED.								Remarks.
	Minor Works.				Repairs.				Minor Works.				Repairs.				
	Civil Buildings.				Civil Buildings.				Civil Buildings.				Civil Buildings.				
	Military.	Postal.	Telegraph.	Salt.	Military.	Postal.	Telegraph.	Salt.	Military.	Postal.	Telegraph.	Salt.	Military.	Postal.	Telegraph.	Salt.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Ganjam ..	1,000	..	..	..	2,000	..	..	..	10,961	..	..	..	2,000	..	..	..	
Vizagapatam ..	256	..	..	..	3,500	200	300	..	..	..	..	..	3,500	200	300	..	
Eastern Godávari ..	60	..	..	..	600	300	500	..	..	..	..	..	600	300	500	..	
Central do. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Western do. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Rushikulya ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Eastern Kistna ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Gudivada ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Western Kistna ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Nellore ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Sangam Project ..	..	..	..	..	..	..	..	..	..	..	..	..	25,000	200	200	..	
Bellary ..	..	..	..	..	2,000	..	..	..	..	..	..	..	..	100	..	..	
Cuddapah ..	..	..	..	..	..	200	..	..	..	..	..	..	..	200	..	..	
Kurnool ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Do. Canal ..	..	..	..	..	1,000	200	200	..	..	..	..	..	15,000	1,000	..	..	
Nílgiri ..	..	..	..	..	..	150	..	..	..	..	..	..	38,000	800	..	..	
Coimbatore ..	..	..	..	..	..	200	..	..	..	..	..	..	..	100	..	..	
Salem ..	..	..	..	..	..	..	..	..	..	..	..	..	..	300	..	..	
North Arcot ..	..	..	..	..	200	1,400	..	..	..	..	..	..	3,000	..	..	..	
Barur Project ..	..	..	..	..	3,000	1,000	..	..	..	..	..	..	3,000	..	..	..	
South Arcot ..	..	..	..	..	..	100	..	..	..	..	..	..	..	100	..	..	
Chingleput ..	..	..	..	..	4,000	200	..	..	..	..	..	..	30,000	200	..	..	
Buckingham Canal ..	..	..	..	..	..	500	2,000	..	..	..	..	..	1,50,000	..	1,000	..	
Presidency ..	..	..	..	..	16,000	500	..	..	..	..	..	..	1,50,000	500	..	..	
Trichinopoly ..	..	..	..	..	600	..	..	..	..	..	..	..	5,000	..	..	..	
Tanjore ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Cauvery, &c. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Negapatam ..	..	..	..	..	..	..	..	..	..	..	..	..	..	300	..	..	
Madura ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Tinnevelly ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Consulting Architect ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Officers Commanding Divisions and Districts.	..	..	..	..	..	..	..	..	*10,961	..	+ 6,000	..	..	..	..	..	
Director-General of Telegraphs.	..	..	..	..	..	..	..	..	..	†10,596	..	..	..	..	..	..	
Do. of Post Offices.	..	..	..	..	..	..	..	..	..	..	..	..	..	600	700	..	
Reserve with Government ..	..	..	..	..	..	..	..	..	..	..	..	..	2,75,000	6,000	3,000	..	
Total ..	28,006	2,900	1,000	..	2,95,000	5,350	3,300	..	10,961	10,596	6,000	..	2,75,000	6,000	3,000	..	

*The officers commanding divisions and districts will allot funds for such minor military works as are required to be carried out during the year.

†The Director-General of Post Offices and the Director-General of Telegraphs will allot funds for such postal and telegraph minor works as may be carried out during the year.

STATEMENT B.

Statement of requirements on account of Imperial Incomplete Works for 1883-84 and of New Works sanctioned but not yet commenced.

Division.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for 1884-85. For incomplete Works.	Amount applied for 1884-85. For new Works.	Amount allotted. For incomplete Works.	Amount allotted. For new Works.	Item No.	Head of Reserve from which the Appropriation is made.
1	2	3	4	5	6	7	8	9	10	11	12	13
		IMPERIAL.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
		OTHER SERVICES.										
		Minor Works.										
Kistna Western.	1	Post office at Duggirala	900	G.O., No. 1918 W., of the 9th July 1883.	..	900	..	900	..	900	1	From minor works grant.
Madura ..	2	Seventh-class post office at Peermad ..	1,384	G.O., No. 508 W., of the 15th February 1883.	1,412	..	28	..	..	..	2	Rs. 28 said to have been spent by the Chief Engineer, Travancore. Appropriation not necessary under code paragraph 2293, III.
Godávari, Eastern.	3	Post office at Kunavaram	600	G.O., No. 1360 W., of the 9th May 1883.	561	39	819	..	..	..	3	Revised estimate for Rs. 1,380 said to have been submitted for sanction. The question of funds can be considered after the revised estimate has been sanctioned.
				Total ..	..	..	847	900	..	900		
		Major Works.										
South Arcot ..	2	Head-sluice across Mercanum brine supply channel.	3,000	G.O., No. 3003 W., of the 14th December 1882.	2,447	553	553	..	..	..	2	Application made to the Government of India for the requisite funds.
Architect ..	3	Constructing post office at Madras ..	3,16,720	G.O., No. 3192 W., of the 12th November 1883.	2,84,924	31,796	31,796	..	..	..	3	Rs. 38,200 provided in the budget. The balance to remain at credit of work, pending the sanction of estimates for stables.
Nílgiri ..	1	Post office at Devála	3,730	G.O., No. 3135 W., of the 29th November 1882.	3,226	504	504	..	504	..	1	From the minor works grant.
				Total ..	..	..	32,853	..	504	..		
		MILITARY.										
		Minor Works.										
Vizagapatam ..	1	Additions to regimental hospital at Vizianagrum.	515	G.O., No. 179 W., of the 21st January 1884.	..	515	..	515	..	..	1	No funds available.
Do. ..	2	Three latrines for 16th Madras native infantry at Vizianagrum.	..	....	..	..	..	2,130	..	..	2	Do. do.
Do. ..	3	Powder magazine with surrounding walls.	..	....	..	..	..	2,069	..	..	3	Do. do.
Do. ..	4	Improvements to hospital of 16th Madras native infantry at Vizianagrum.	..	....	..	..	..	545	..	..	4	Do. do.
Do. ..	5	Improvements to tent godown of 16th Madras native infantry at Vizianagrum.	..	....	..	..	..	400	..	..	5	Do. do.
Godávari Eastern.	6	Two latrines for the detachment of the native infantry at Sámalkót.	..	....	..	..	..	150	..	..	6	Do. do.
Do. do. ..	7	Providing lightning conductor for the powder magazine at Sámalkót.	..	....	..	..	..	300	..	..	7	Do. do.
Bellary ..	8	Compound-wall and latrine for the quarters of the army hospitals corps at Bellary.	1,335	G.O., No. 490 W., of the 22nd February 1884.	..	1,335	..	1,335	..	..	8	Do. do.
Do. ..	9	Compound-wall with two gates to enclose the female hospital attached to the station hospital.	1,300	G.O., No. 3662 W., of the 20th December 1883.	..	1,300	..	1,300	..	..	9	Do. do.
Do. ..	10	Three cisterns to receive the waste water from the wash-houses of the European infantry barracks at Bellary.	1,500	G.O., No. 1125 W., of the 6th May 1884.	..	1,500	..	1,500	..	1,500	10	From minor works grant.
Presidency ..	11	Constructing 18 married quarters in the parade barracks at Bangalore into quarters for nine staff sergeants ..	1,035	G.O., No. 1161 W., of the 18th April 1883.	62	973	973	..	973	..	11	Do. do.
Do. ..	12	Latrine for the native infantry at Ráyapuram.	1,100	G.O., No. 3328 W., of the 22nd November 1883.	502	598	598	..	598	..	12	Do. do.
Chingleput ..	13	Dead-house for the depôt hospital at Pallávaram.	812	G.O., No. 1271 W., of the 21st May 1884.	..	812	..	812	..	..	13	No funds available.
Coimbatore ..	14	Improvements to the canteen at Malapuram.	1,455	G.O., No. 248 W., of the 10th January 1884.	1,020	435	435	..	..	..	14	Appropriation not necessary under code paragraph 2293, III.
Do. ..	15	Building a shed in front of the Commissariat stores at Malapuram for watchmen.	294	Superintending Engineer's Register No. 49 of 1883-84.	89	205	205	..	..	..	15	Do. do.
Do. ..	16	New rifle range at Malapuram ..	219	Superintending Engineer's Register No. 83 of 1883-84.	108	111	111	..	..	..	16	Do. do.
Do. ..	17	Asphalting the floor of the Commissariat godowns at Cannanore.	460	Superintending Engineer's Register No. 54 of 1883-84.	169	291	291	..	..	..	17	Do. do.
Do. ..	18	Fixing lightning conductors to the new station magazine at Cannanore.	500	Superintending Engineer's Register No. 67 of 1883-84.	92	408	408	..	..	..	18	Do. do.
Do. ..	19	Fixing lightning conductors to the old station magazine at Cannanore.	500	Superintending Engineer's Register No. 68 of 1883-84.	82	418	418	..	..	..	19	Do. do.
Do. ..	20	Fixing lightning conductors for the native infantry magazine at Cannanore.	400	Superintending Engineer's Register No. 69 of 1883-84.	52	348	348	..	..	..	20	Do. do.
Do. ..	21	Fixing lightning conductors to the European infantry magazine at Cannanore.	355	Superintending Engineer's Register No. 70 of 1883-84.	267	88	88	..	..	..	21	Do. do.

Statement of requirements on account of Imperial Incomplete Works for 1883-84 and of New Works sanctioned but not yet commenced—*cont.*

Division.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for 1884-85. For incomplete Works.	Amount applied for 1884-85. For new Works.	Amount allotted. For incomplete Works.	Amount allotted. For new Works.	Item No.	Head of Reserve from which the Appropriation is made.
1	2	3	4	5	6	7	8	9	10	11	12	13
		IMPERIAL—*cont.*			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
		MILITARY—*cont.*										
		Minor Works—cont.										
Coimbatore ..	22	Fixing lightning conductors to the fort magazine at Cannanore.	350	Superintending Engineer's Register No. 71 of 1883-84.	69	281	281	..	..	..	22	Appropriation not necessary under code paragraph 2293, III.
North Arcot ..	23	Fixing lightning conductors to the powder magazine in the Vellore fort.	1,140	G.O., No. 44 W., of the 10th Jan. 1884.	1,000	140	140	..	..	..	23	Do. do.
Nilgiri ..	24	Guard-shed at His Excellency the Commander-in-Chief's house at Ootacamund.	422	....	338	84	84	..	..	..	24	Do. do.
Do. ..	25	Providing 25 dry-earth boxes for latrine of hospital at Wellington.	100	....	36	64	64	..	..	..	25	Do. do.
Barur Project ..	26	Altering and improving the centre lines, Remount depôt, for the stabling of farm horses.	361	Superintending Engineer's Register No. 26 of 1883-84.	320	41	41	..	..	..	26	Do. do.
Do. ..	27	Providing sky lights to stud lines, Remount depôt.	390	....	..	390	390	..	390	..	27	Work almost completed on emergency last year in anticipation of allotments. Appropriation made from minor works grant.
Do. ..	28	Providing skylights to 40 horse stables at Remount depôt.	426	....	..	426	..	426	..	..	28	No funds available.
Coimbatore ..	29	Constructing a shed for 5 elephants at Cannanore.	850	G.O., No. 694 W., of the 14th March 1884.	..	850	..	850	..	..	29	Do. do.
Do. ..	30	Converting a part of gun-shed at Mangalore into a drying and forge room for the armourers of the native infantry regiment.	..	....	..	..	..	790	..	..	30	Do. do.
Do. ..	31	Building a urinary for the plunge bath of the Royal Artillery barracks at Cannanore.	30	Superintending Engineer's Register No. 24 of 1883-84.	..	30	..	30	..	..	31	Do. do.
Do. ..	32	Building a urinary for the station hospital at Cannanore.	68	Superintending Engineer's Register No. 25 of 1883-84.	..	68	..	68	..	..	32	Do. do.
North Arcot ..	33	Staff sergeant's quarters at Vellore ..	1,260	G.O., No. 2705 W., of the 2nd November 1881.	..	1,260	..	1,260	..	..	33	Do. do.
Do. ..	34	Sinking a well in the lines of the native infantry at Vellore.	85	Superintending Engineer's Register No. 3 of 1882-83.	..	85	..	85	..	..	34	Do. do.
Do. ..	35	Pension pay office at Vellore, providing new doors and granite flooring, &c.	230	Superintending Engineer's Register No. 21 of 1881-82.	..	230	..	230	..	..	35	Do. do.
Do. ..	36	Native regimental school at Vellore ..	2,150	G.O., No. 44 W., of the 10th Jan. 1884.	..	2,150	..	2,150	..	..	36	Do. do.
Nilgiri ..	37	Providing bath-rooms, sergeant's quarters, Wellington.	..	....	..	..	..	865	..	..	37	Do. do.
Do. ..	38	Flooring the passage leading from the family quarters to the latrines at Wellington.	640	G.O., No. 415 W., of the 15th February 1884.	..	640	..	640	..	..	38	Do. do.
Do. ..	39	Drinking water to be laid on to hospital at Wellington.	..	....	..	..	..	2,220	..	..	39	Do, do.
Do. ..	40	Adding a room to the hospital purveyor's godown at Wellington.	..	....	..	..	..	1,410	..	..	40	Do. do.
				Total ..	..	..	4,875	22,080	1,961	1,500		
		Major Works.										
Bellary ..	1	Constructing stables for one field battery.	10,000	G.O., No. 2099 W., of the 1st August 1883.	8,540	1,460	1,460	..	1,460	..	1	From minor works grants.
Do.	2	Constructing a double slaughter-house for use of the Commissariat department.	7,210	G.O., 136 W., of the 13th January 1883.	3,567	3,643	3,643	..	3,643	..	2	Do. do. ..
Do.	3	Constructing an infectious disease ward and cook-house for the station hospital at Bellary.	6,140	G.O., No. 320 W., of the 7th February 1884.	..	6,140	..	6,140	..	..	3	Item No. 5, Appendix B. No funds available.
Do.	4	Constructing collar maker's and wheeler's shop for the Royal Artillery at Bellary.	5,663	G.O., No. 914 W., of the 3rd April 1884.	..	5,663	..	5,663	..	..	4	Item No. 13, Appendix B. No funds available.
Do.	5	Constructing school-house for a native infantry regiment at Bellary.	3,030	G.O., No. 149 W., of the 17th January 1884.	..	3,030	..	3,030	..	..	5	No funds available.
Coimbatore ..	6	Converting the old artillery stables at Cannanore into a bakery and sinking a well.	11,380	G.O., No. 181 W., of the 21st January 1884.	5,000	6,380	3,880	..	..	..	6	Rs. 3,880 required in addition to the grant of Rs. 2,500 provided in the budget. Item No. 8, Class A. No funds available.
Barur Project ..	7	Purchase of Honorary Surgeon Wells' bungalow and that of the farrier sergeant at the Remount depôt (2,500+1,510).	4,010	G.O., No. 2903 W., of the 15th October 1883.	..	4,010	..	4,010	..	..	7	Item No. 46, Appendix B. No funds available.
Nilgiri	8	Bakery at Wellington	..	....	..	..	..	10,000	..	..	8	Estimate under revision. Item No. 45, Appendix B. No funds available. Rs. 5,000 provided in preliminary issue of budget withheld by G.O. I. pending sanction to estimate.
Nilgiri	9	Barracks for a detachment of native infantry at Ootacamund.	12,930	G.O., No. 612 W., of the 6th March 1884.	..	12,930	..	12,930	..	..	9	No funds available. Estimate since cancelled. *Vide* G.O., No. 1376 W./A, dated 2nd June 1884.

Statement of requirements on account of Imperial Incomplete Works for 1883-84 and of new Works sanctioned but not yet commenced—*cont.*

Divison.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for 1884-85. For incomplete Works.	Amount applied for 1884-85. For new Works.	Amount allotted. For incomplete Works.	Amount allotted. For new Works.	Item No.	Head of Reserve from which the Appropriation is made.
1	2	3	4	5	6	7	8	9	10	11	12	13
		IMPERIAL—*cont.*										
		MILITARY—*cont.*										
		Major Works—cont.										
					Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
Presidency ..	10	Completing the emplacements and improving the store rooms, &c., of the coast batteries, Madras.	48,800	G.Os., No. 20 W., of 8th Jan. 1884, and No. 1661 W., of the 13th June 1883.	30,510	18,290	8,290	..	..	..	10	In addition to Rs. 10,000 provided in the budget Item No. 5 Class A. No funds available.
Do. ..	11	Fortified post at Agram, Bangalore ..	34,280	G.O., No. 3060 W., dated 30th October 1883.	3,453	30,827	10,827	..	..	..	11	In addition to Rs. 20,000 provided in the budget. Item No. 4, Class B. No funds available.
Do. ..	12	Alterations and additions to wash-houses for the British infantry at Bangalore.	12,500	G.O., No. 1102 W., of the 7th May 1880.	7,636	4,864	..	..	..	..	12	The grant of Rs. 4,000 provided in the budget (Item No. 3, Class A) may be resumed if the Military Department does not require the full number of bath-rooms being constructed. Under reference with the Military Department
Do. ..	13	Armaments of Fort St. George.	42,035	G.O., No. 2970 W., dated 19th October 1883.	..	42,035	..	..	..	..	13	Superintending Engineer, V Circle, recommends the grant of Rs. 30,000 provided in the budget being reduced by Rs. 15,000, Item No. 6, Class A. Referred to Quartermaster-General.
Do. ..	14	Re-roofing and re-flooring the barrel machine shop at the gun carriage factory, Madras.	4,030	G.O., No. 2413 W., of the 16th September 1883.	..	4,030	..	..	..	2,795	14	Item No. 40, Appendix B. Allotment made for re-roofing the barrel machine shops only.
Trichinopoly ..	15	Constructing public buildings in connection with the lines of the 30th regiment native infantry at Trichinopoly.	14,215	G O., No. 3128 W., of the 5th November 1883, and G.O., No. 1187 W., of the 10th May 1884.	3,138	11,077	6,577	..	..	..	15	In addition to Rs. 4,500 provided in the budget. Item No. 2, Class B works. No funds available.
			..	Total ..	..	..	34,677	41,773	5,103	2,795		

STATEMENT C.

Statement showing Funds applied for and those granted under Provincial.

Divisions.	Amounts applied for: Minor Works. Civil Buildings.	Communications.	Miscellaneous Public Improvements.	Repairs. Civil Buildings.	Communications.	Miscellaneous Public Improvements.	Tools and Plant.	Amounts granted: Minor Works. Civil Buildings.	Communications.	Miscellaneous Public Improvements.	Repairs. Civil Buildings.	Communications.	Miscellaneous Public Improvements.	Tools and Plant.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjam	2,000	..	..	9,000	2,100	..	500	2,000	..	..	9,000	2,100	..	500
Vizagapatam	3,500	..	..	1,000	12,500	..	2,000	2,000	..	..	1,000	12,500	..	2,000
Eastern Godâvari	1,200	..	..	500	15,000	..	8,000	1,000	..	..	500	15,000	..	8,000
Central do.	200	..	..	500	..	..	500	200	..	..	500	..	..	500
Western do.	..	..	..	800	..	..	1,200	..	..	..	800	..	..	1,200
A Project	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rushikulya	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eastern Kistna	1,530	..	..	2,300	..	600	3,940	1,000	..	..	2,000	..	600	3,900
Gudivâda	..	..	..	..	..	..	300	..	..	..	..	..	..	300
Western Kistna	200	..	..	100	..	..	100	200	..	..	100	..	..	100
Nellore	500	..	..	5,000	..	..	2,300	500	..	..	5,000	..	..	2,300
Sangam	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bellary	1,500	..	..	2,000	..	..	700	1,000	..	..	2,000	..	..	700
Cuddapah	700	..	..	1,500	..	..	900	500	..	..	1,500	..	..	900
Kurnool	300	..	..	1,000	..	..	(a)2,500	300	..	..	1,000	..	..	2,500
Do. Canal	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C Project	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nîlgiri	2,000	..	..	12,000	..	3,000	3,000	2,000	..	..	8,000	..	3,000	3,000
Coimbatore	2,000	..	..	4,500	..	..	2,630	2,000	..	..	4,500	..	..	2,500
Salem	1,500	..	..	5,000	..	..	300	1,000	..	..	5,000	..	..	300
North Arcot	500	..	..	1,000	..	..	800	500	..	..	1,000	..	..	800
B Project	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Barur Project	500	..	..	500	..	..	150	500	..	..	500	..	..	150
South Arcot	12,000	..	..	1,500	..	..	1,430	4,000	..	..	1,500	..	..	1,400
Chingleput	4,000	..	..	9,000	..	..	500	3,000	..	..	8,000	..	..	500
Buckingham Canal	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Presidency	15,000	..	..	65,000	20,000	4,000	4,526	10,000	..	..	65,000	18,400	3,000	4,526
Trichinopoly	500	..	..	200	..	..	1,000	500	..	..	200	..	..	1,000
Tanjore	..	..	..	1,440	..	..	1,000	..	..	..	12,000	..	..	1,000
Cauvery, &c.	..	..	..	(b)10,774	..	..	..	..	..	..	..	..	..	..
Negapatam	..	..	..	..	..	..	500	..	..	..	..	..	..	500
Madura	250	..	..	200	..	..	300	250	..	..	200	..	..	300
Tinnevelly	300	..	..	4,500	(c)1,635	..	1,000	300	..	..	4,500	1,600	..	1,000
Consulting Architect	3,000	..	..	500	..	..	..	500	..	..	500	..	..	500
Reserve with Government	..	..	..	2,000	..	..	..	2,000	..	..	2,000	..	..	30,461
	..	..	..	..	..	..	..	..	..	..	2,500	..	..	500
Total ..	53,180	..	..	1,41,814	51,235	7,600	40,070	34,750	..	..	1,38,800	49,600	6,600	70,837

(a) For conveying famine tools, and cleaning and tarring all serviceable tools.
(b) For repairing Tanjore Palace.
(c) For Gudalûr Peermad Ghât.

STATEMENT D.

Statement of requirements on account of Provincial and Local Incomplete Works for 1883-84 and of New Works sanctioned but not yet commenced.

Division.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for		Amount allotted		Item No.	Head of Reserve from which the Appropriation is made.
							For incomplete Works.	For new Works.	For incomplete Works.	For new Works.		
1	2	3	4	5	6	7	8	9	10	11	12	13
		PROVINCIAL.	RS.		RS.	RS.	RS.	RS.	RS.	RS.		
		Minor Works.										
Ganjam ..	1	Additions to divisional office at Berhampore.	2,468	G.O., No. 107 W., of the 14th January 1884.	1,719	749	749	..	749	..	1	From Provincial Reserve.
Do. ..	2	Quarters for the jailor at Berhampore.	2,300	G.O., No. 417 W., of the 16th February 1884.	..	2,300	..	2,300	..	..	2	No funds available.
Do. ..	3	Providing accommodation for female prisoners in the district jail at Berhampore.	1,400	G.O., No. 588 W., of the 4th March 1884.	..	1,400	..	1,400	..	..	3	Do. do.
Do. ..	4	Reconstructing school-house at Russellkonda.	1,680	G.O., No. 2029 W., of the 25th July 1883.	1,025	655	655	..	655	..	4	From Provincial Reserve.
Godávari, Eastern.	5	Enlarging the Superintending Engineer's office at Dowlaishweram.	2,450	G.O., No. 1448 W., of the 19th May 1883.	1,676	774	774	..	774	..	5	Do. do.
Do. do. ..	6	Out-offices for the jail superintendent's quarters at Rajahmundry.	2,250	G.O., No. 492 W., of the 22nd February 1884.	1,000	1,250	1,250	..	1,250	..	6	Do. do.
Gudiváda ..	7	Treasury room in the compound of the taluk cutcherry at Gudiváda.	1,460	G.O., No. 2231 W., of the 11th August 1883.	545	915	915	..	915	..	7	Do. do.
Cuddapah ..	8	Improving the Cuddapah divisional office.	2,100	G.O., No. 3231 W., of the 14th November 1883.	1,145	955	955	..	955	..	8	Revised estimate promised. From Provincial Reserve.
Bellary ..	9	An additional store-room and office-room to the district munsif's court at Narayandevirkeri.	1,180	G.O., No. 180 W., of the 21st January 1884.	..	1,180	..	1,180	..	..	9	No funds available.
Do. ..	10	Ryots' shed at Hospet	747	G.O., No. 384 W., of the 13th February 1884.	..	747	..	747	..	..	10	Do. do.
Coimbatore ..	11	Sinking a well in the civil debtors' wards in the Calicut jail.	900	G.O., No. 421 W., of the 16th February 1884.	..	900	..	900	..	..	11	Do. do.
Do. ..	12	Purchasing ground adjacent to the central jail at Cannanore.	1,194	G.O., No. 1162 W., of the 8th May 1884.	..	1,194	..	1,194	..	..	12	No funds available.
Nilgiri ..	13	Monegars' chavady at Kótagiri ..	865	G.O., No. 2186 W., of the 8th August 1883.	563	302	302	..	..	..	13	Appropriation not necessary under code paragraph 2293, III.
Do. ..	14	Additions and alterations to Sub-Judge's court at Ootacamund.	405	Superintending Engineer's register No. 45 of 1883-84.	164	241	241	..	..	..	14	Do. do.
Do. ..	15	Temporary buildings for the establishment of the Head Assistant Collector at Naduvattam.	1,360	G.O., No. 290 W., of the 4th February 1884.	..	1,360	..	1,360	..	1,360	15	From Provincial Reserve.
Do. ..	16	Improvements to monegars' chavady at Kótagiri.	45	....	..	45	..	45	..	..	16	Funds can be allotted from the grant at the Superintending Engineer's disposal.
Do. ..	17	Boundary wall to form a cemetery at Pookote, South Wynaad.	..	....	..	..	..	1,500	..	..	17	The question of funds can be considered after the estimate has been sanctioned.
Do. ..	18	Survey establishment employed in connection with Ootacamund water-supply.	2,400	G.O., No. 1536 W., of the 2nd June 1883.	1,745	655	655	..	655	..	18	From Provincial Reserve.
North Arcot ..	19	Sub-jail in the Wandiwash taluk cutcherry.	175	Superintending Engineer's register No. 5 of 1883-84.	92	83	83	..	..	..	19	Appropriation not necessary under code paragraph 2293, III.
Salem	20	Additions to Tirupatúr munsif's court.	1,343	G.O., No. 424 W., of the 16th February 1884.	..	1,343	..	1,343	..	..	20	No funds available.
Do.	21	Providing masonry wells for eight sub-treasuries in Salem district.	128	Superintending Engineer's register No. 15 of 1883-84.	..	128	..	128	..	..	21	Funds can be allotted from the grant at the Superintending Engineer's disposal.
South Arcot ..	22	Improving the sub-divisional officer's bungalow at Vriddháchalam.	1,690	G.Os., No. 2980 W., of the 29th October 1883, and No. 139 W., of the 8th March 1884.	625	1,065	1,065	..	1,065	..	22	From Provincial Reserve.
Do. ..	23	Compensation for land taken up for sub-divisional officer's bungalow and office at Tindivanam.	514	G.O., No. 703 W., of the 14th March 1884.	..	514	514	..	..	..	23	The Superintending Engineer, V Circle, should apply for the grant later in the year after ascertaining that the amount was not disbursed by the Collector before the close of 1883-84.
Presidency ..	24	Terraced shed in connection with Small Cause Court at Madras.	2,260	G.O., No. 31 W., of the 8th January 1884.	984	1,276	1,276	..	1,276	..	24	From Provincial Reserve.
Tinnevelly ..	25	Constructing a coach-house to the Sub-Collector's bungalow at Tuticorin.	378	Sanctioned by Superintending Engineer.	350	28	28	..	..	..	25	Appropriation not necessary under code paragraph 2293, III.
Madura	26	Deputy tahsildar's cutcherry at Tirupatúr.	280	Sanctioned by the Superintending Engineer.	190	90	90	..	..	..	26	Grant not necessary under code paragraph 2293, III.
Tanjore ..	27	Improving the sub-jail at Nannilam ..	11,100	G.O., No. 663 W., of the 1st March 1883.	951	149	149	..	..	..	27	Do. do.

Statement of requirements on account of Provincial and Local Incomplete Works for 1883-84 and of New Works sanctioned but not yet commenced—*cont.*

Division.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for		Amount allotted		Item No.	Head of Reserve from which the Appropriation is made.
							For incomplete Works.	For new Works.	For incomplete Works.	For new Works.		
1	2	3	4	5	6	7	8	9	10	11	12	13
		PROVINCIAL—*cont.*	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
		Minor Works—cont.										
Tanjore ..	28	Altering the old taluk cutcherry at Shiyáli to suit the requirements of the district munsif's court.	2,360	G.O., No. 3478 W., of the 4th December 1883.	799	1,561	1,561	..	1,561	..	28	From Provincial Reserve.
Negapatam ..	29	Altering and improving the accommodation afforded to the district munsif's court at Tiruturaipúndi.	2,000	G.O., No. 1673 W., of the 16th November 1877.	2,009	..	500	..	..	..	29	A revised estimate promised, when the question of funds can be considered.
Tanjore ..	30	Improvements to the Thiruvadamarudúr palace.	2,095	G.O., No. 946 W., of the 7th April 1884.	..	2,095	..	2,095	..	2,095	30	From Provincial Reserve.
Architect ..	31	Special repairs to Presidency College (Repairs).	374	....	300	74	74	..	..	..	31	Funds to be provided from the repair grant at the disposal of Consulting Architect.
Do. ..	32	Converting the gallery into a museum, Presidency College (Repairs).	371	....	368	3	3	..	..	..	32	Do. do.
Do. ..	33	Trimming and turfing slopes and other repairs at the Presidency College (Repairs).	367	....	336	31	31	..	..	..	33	Do. do.
Do. ..	34	Replastering the passage at end of stairs and repairing punkahs at Presidency College (Repairs).	300	....	107	193	193	..	..	..	34	Do. do.
		Total ..	..	....	..	..	12,063	14,192	9,855	3,455		
		Major Works.										
Vizagapatam ..	1	Third-class taluk cutcherry at Párvatipur.	8,460	G.O., No. 66 W., of the 12th January 1881.	6,644	1,816	924	..	924	..	1	Rs. 924 required in addition to Rs. 892 provided in the budget. Item No. 2, Class A.
Do. ..	2	Travellers' bungalow at Sálúr	4,520	G.O., No. 65 W., of the 9th Jan. 1883.	2,933	1,587	1,587	..	1,587	..	2	From Provincial Reserve.
Do. ..	3	Iron safes for taluk cutcherries in the Vizagapatam district.	6,000	G.O., No. 2680 W., of the 24th September 1883.	..	6,000	..	6,000	..	6,000	3	Do. do.
Godávari Eastern.	4	Improvements to the sea custom house buildings at Cocanada.	4,310	G.O., No. 1254 W., of the 30th April 1883.	2,470	1,840	1,840	..	1,840	..	4	Do. do.
Do. do. ..	5	Office buildings for Eastern and Head works sub-divisions.	..	....	..	..	..	5,725	..	..	5	The question of funds can be considered after sanction to estimate.
Do. do. ..	6	New church at Cocanada	14,039	G.O., No. 2510 W., of the 7th September 1883.	3,375	10,664	2,625	..	2,625	..	6	Balance of Rs. 6,000 to be allotted by Government. From Provincial Reserve.
Do. do. ..	7	Deputy tahsildar's cutcherry at Gokavaram.	..	....	..	..	..	5,000	..	..	7	The question of funds can be considered after sanction to estimate.
Do. do. ..	8	Additions to the Rajahmundry College.	6,900	G.O., No. 1271 W., of the 1st May 1883.	5,455	1,445	1,445	..	1,445	..	8	From Provincial Reserve.
Godávari, Western.	9	Third-class taluk cutcherry at Pentapad.	7,200	G.O., No. 1311 W., of the 8th May 1875.	6,594	606	606	..	606	..	9	Do. do.
Kistna, Western.	10	District munsif's court at Bápatla ..	12,620	G.O., No. 1492 W., of the 15th June 1882.	10,035	2,585	2,585	..	2,585	..	10	Do. do.
Nellore ..	11	Improvements to the district jail at Nellore.	6,372	G.Os., No. 472 W., dated 13th February 1883, and No. 489 W., dated 22nd February 1884.	4,640	1,732	1,732	..	1,732	..	11	Do. do.
Do. ..	12	Sub-jail at Darsi	4,550	G.O., No. 1994 W. A., dated 18th July 1883.	3,055	1,495	800	..	800	..	12	Do. do.
Kistna, Eastern.	13	Improvements to the Collector's cutcherry at Masulipatam.	34,845	G.O., No. 493 W., dated 15th February 1883.	9,235	25,610	9,291	..	..	..	13	In addition to the sum of Rs. 16.319 provided in the budget. Item No. 7, Class A. No funds at present available.
Do. do. ..	14	Improvements to the Collector's house at Masulipatam.	5,744	G.O., No. 2265 W., dated 14th August 1883.	3,899	1,845	..	..	..	..	14	Rs. 1,155 surrendered from the grant of Rs. 3,000 provided in the budget. Item No. 8, Class A. Rs. 1,155 resumed.
Bellary ..	15	Quarters for a police inspector and an apothecary at Anantapur.	7,500	G.O., No. 3496 W., of the 6th December 1883.	..	7,500	..	7,500	..	5,000	15	From Provincial Reserve.
Do. ..	16	Head Assistant Collector's cutcherry at Hospet.	3,515	G.O., No. 52 W., of the 10th January 1884.	354	3,161	3,161	..	3,161	..	16	Do. do.
Cuddapah ..	17	Additions and alterations to the district court-house at Cuddapah.	7,780	G.O., No. 1398 W., of the 10th May 1879.	7,343	437	230	..	..	..	17	Appropriation not necessary under code paragraph 2293, III.
Kurnool ..	18	Sub-divisional officer's bungalow at Cumbum.	3,000	G.O., No. 1549 W., of the 4th June 1883.	1,067	1,933	1,933	..	1,933	..	18	From Provincial Reserve.
Bellary ..	19	Bungalow for the sub-divisional officer at Anantapur.	3,750	G.O., No. 355 W., of the 9th February 1884.	..	3,750	..	3,750	..	3,750	19	Work commenced. Item No. 42, Class B. From Provincial Reserve.
Do. ..	20	Combined office for the Superintending Engineer and Executive Engineer in the fort at Bellary.	18,494	G.O., No. 1129 W., of the 6th May 1884.	..	18,494	..	18,494	..	..	20	No funds available.

Statement of requirements on account of Provincial and Local Incomplete Works for 1883-84 and of New Works sanctioned but not yet commenced—*cont.*

Division.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for		Amount allotted		Item No.	Head of Reserve from which the Appropriation is made.
							For incomplete Works.	For new Works.	For incomplete Works.	For new Works.		
1	2	3	4	5	6	7	8	9	10	11	12	13
		PROVINCIAL—*cont.*	RS.		RS.	RS.	RS.	RS.	RS.	RS.		
		Major Works—cont.										
Coimbatore ..	21	Improving the taluk cutcherry at Cherikal.	8,164	G.O., No. 423 W., of the 16th February 1883.	7,320	844	844	..	844	..	21	From Provincial Reserve.
Do. ..	22	Do. do. at Udipi ..	4,500	G.O., No. 3187 W., of the 5th December 1882.	2,914	1,586	1,586	..	1,586	..	22	Do. do.
Do. ..	23	Do. Huzur treasury at Coimbatore.	3,910	G.O., No. 3006 W., of the 24th October 1883.	2,897	1,013	1,013	..	1,013	..	23	Do. do.
Do. ..	24	Sea custom house at Malpi	6,560	G.O., No. 109 W., of the 14th January 1884.	..	6,560	..	6,560	..	..	24	Item No. 15, Class B. No funds available.
Do. ..	25	Do. do. at Tanúr	2,960	G.O., No. 386 W., of the 13th February 1884.	..	2,960	..	2,960	..	..	25	Item No. 16, Class B. No funds available.
Nílgiris ..	26	Quarters for six single or three married clerks on Stonehouse Hill, Ootacamund.	21,914	G.O., No. 1936 W., of the 1st August 1882.	9,073	12,841	12,841	..	10,000	..	26	From Provincial Reserve.
Do. ..	27	Cinchona buildings at Naduvattam ..	38,220	G.O., No. 749 W., of the 8th March 1883.	36,334	1,886	1,886	..	1,886	..	27	Do. do.
Do. ..	28	Converting cattle-shed into latrine at Lawrence Asylum, Ootacamund.	2,650	G.O., No. 191 W., of the 27th January 1884.	1,247	1,403	1,403	..	1,403	..	28	Do. do.
Do. ..	29	Purchasing, improving and furnishing Ottley Hall property.	25,820	G.O., No. 758 W., of the 20th March 1884.	23,356	2,464	2,464	..	2,464	..	29	Do. do.
Do. ..	30	Bazar drainage scheme	2,00,935	G.Os., No. 682 W., of the 13th March 1884, and 1112 W., of the 5th May 1884.	77,819	1,23,116	41,981	..	..	..	30	In addition to Rs. 14,200 provided in the budget. Item No. 157, Class A. No funds now available.
Do. ..	31	Security of the road through Elk Hill cutting.	10,400	G.O., No. 263 W., of the 30th January 1884.	1,838	8,562	8,562	..	8,562	..	31	From Provincial Reserve.
Do. ..	32	Lines and quarters for 38 sappers and 2 native officers.	14,330	..	..	..	14,330	..	..	..	32	In addition to Rs. 5,600 provided in the budget. Item No. 94, Class A. The question of funds can be considered on the estimate being sanctioned.
North Arcot ..	33	Taluk cutcherry at Wállájapet ..	35,270	G.O., No. 2726 W., of the 20th September 1883.	32,783	2,487	2,487	..	2,487	..	33	From Provincial Reserve.
Do. ..	34	Jail superintendent's quarters at Vellore.	26,080	G.O., No. 279 W., of the 25th January 1883.	20,451	5,629	5,629	..	5,629	..	34	Do. do.
South Arcot ..	35	Additions to the Collector's cutcherry at Manjakuppam.	8,528	G.O., No. 294 W., of the 26th January 1883.	2,834	5,694	2,200	..	2,200	..	35	In addition to Rs. 3,494 provided in the budget. Item No. 32. From Provincial Reserve.
Presidency ..	36	Improvements to the Government House at Madras.	19,253	G.O., No. 1632 W., of the 11th June 1883.	18,316	937	937	..	937	..	36	From Provincial Reserve.
Do. ..	37	Improvements to the laboratory of the Chemical Examiner's room, Medical College.	22,900	G.O., No. 89 W., of the 10th January 1883.	20,847	2,053	1,000	..	1,000	..	37	Do. do.
Do. ..	38	Adding a chancel to St. Mary's church at Fort St. George.	5,370	G.O., No. 3448 W., of the 1st December 1883.	2,275	3,095	3,095	..	3,095	..	38	Do. do.
Do. ..	39	Improvements to the apothecary's quarters, leper hospital, Madras.	4,980	G.O., No. 3416 W., of the 29th November 1883.	2,015	2,965	1,315	..	1,315	..	39	In addition to Rs. 1,650 provided in the budget. Item No. 90. From Provincial Reserve.
Chingleput ..	40	Constructing a strong-room and for additions and alterations, &c., to the taluk cutcherry, Ponnéri.	3,665	G.O., No. 2686 W., of the 24th September 1883.	3,444	221	593	..	593	..	40	Substitution of teak-wood for palmyrahs has caused an excess of Rs. 372. From Provincial Reserve.
Trichinopoly ..	41	District munsif's court-house at Kulitalai.	16,100	G.O., No. 2848 W., of the 20th October 1882.	14,110	1,990	490	..	..	..	41	In addition to Rs. 1,500 provided in the budget. Item No. 49. The question of further funds can be considered later in the year.
Do. ..	42	First-class taluk cutcherry at Perambalúr.	27,000	G.O., No. 2769 W., of the 6th July 1878.	18,136	8,864	4,344	..	4,000	..	42	In addition to Rs. 3,000 provided in the budget. Item No. 26. From Provincial Reserve.
Do. ..	43	District munsif's court at Ariyalúr ..	13,800	G.O., No. 2121 W., of the 21st August 1881.	11,186	2,614	614	..	614	..	43	In addition to Rs. 2,000 provided in the budget. Item No. 48. From Provincial Reserve.
Tanjore ..	44	Divisional office at Tanjore ..	11,920	G.O., No. 944 W., of the 7th April 1884.	5,568	6,352	6,352	..	6,352	..	44	From Provincial Reserve.
Do. ..	45	District munsif's court at Tiruvádi ..	11,900	G.O., No. 3165 W., of the 16th November 1875.	10,831	1,069	1,069	..	1,069	..	45	Do. do.
Do ..	46	Cemetery at Pudupatnam	3,170	G.O., No. 2679 W., of the 24th September 1883.	1,111	2,059	..	..	..	..	46	Rs. 111 surrendered from the grant of Rs. 2,170 provided in the budget. Item No. 51. Rs. 111 resumed.

Statement of requirements on account of Provincial and Local Incomplete Works for 1883-84 and of New Works sanctioned but not yet commenced—*cont.*

Division.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for		Amount allotted		Item No.	Head of Reserve from which the Appropriation is made.
							For incomplete Works.	For new Works.	For incomplete Works.	For new Works.		
1	2	3	4	5	6	7	8	9	10	11	12	13
			Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
		Provincial—cont.										
		Major Works—cont.										
Do. ..	47	*Improvements to Deputy Collector's office at Tanjore.*	2,855	G.O., No. 1453 W., of the 19th May 1883.	2,219	636	..	..	..	..	47	Rs. 219 surrendered from the grant of Rs. 855 provided in the budget. Item No 33. Rs. 219 resumed.
Tinnevelly ..	48	Third-class taluk cutcherry with out-houses at Virudupati.	9,395	G.O., No. 1355 W., of the 9th May 1883.	8,744	651	651	..	651	..	48	From Provincial Reserve.
Madura ..	49	Preservation of Tirumul Naik's palace and adoption for public offices.	1,64,723	G.O., No.	2,31,962	..	22,502	..	..	..	49	In addition to Rs. 17,498 provided in the budget. Item No. 96, Class A. No funds now available.
Do. ..	50	Deputy tahsildar's cutcherry with out-houses at Kodaikánal.	11,160	G O., No. 2916 W., of the 16th October 1883.	4,778	6,382	2,222	..	2,222	..	50	In addition to Rs. 4,160 provided in the budget. Item No. . From Provincial Reserve.
Do. ..	51	District munsif's court at Sivaganga ..	14,900	G.O., No. 2266 W., of the 14th August 1883.	6,100	8,800	..	..	..	..	51	Rs. 1,200 surrendered from the grant of Rs. 10,000 provided in the budget. Item No. 50. Rs. 1,200 resumed.
Negapatam ..	52	Sub-magistrate's cutcherry and police station at Arantángi.	10,300	G.O., No. 3010 W., of the 14th November 1882.	10,827	..	2,113	..	..	..	52	Revised estimate promised. The question of funds can be considered later in the year.
Do. ..	53	Deputy Collector's cutcherry at Mannárgudi.	7,895	G.O., No. 1293 W., of the 2nd May 1883.	4,881	3,014	3,014	..	3,014	..	53	From Provincial Reserve.
Do. ..	54	Town sub-magistrate's cutcherry and police station at Negapatam.	6,420	G.O., No. 1395 W., of the 12th May 1883.	5,024	1,396	..	..	..	..	54	Rs. 24 surrendered from the grant of Rs. 1,420 provided in the budget. Item No. 47.
Do. ..	55	Improvements to the taluk cutcherry at Mannárgudi.	3,890	G.O., No. 314 W., of the 6th February 1884.	..	3,890	..	3,890	..	..	55	Item No. 17, Class B. No funds available.
Architect ..	56	Additions to Zenana, Amir Mahal ..	74,881	G.O., No. 1779 W., of the 25th June 1883.	61,490	13,391	13,391	..	10,000	..	56	From Provincial Reserve
Do. ..	57	Additions and improvements to Public Works offices at Chepák.	97,044	G.Os., Nos. 49 W. and 50 W., of the 10th January 1884, and G.O., No. 1338 W., dated 28th May 1884.	77,006	20,038	..	..	..	..	57	Rs. 4,962 surrendered from the grant of Rs. 25,000 provided in the budget. Item No. 92 Class A. Rs. 4,962 resumed.
Do. ..	58	Adding a record-room and verandah to Examiner's office at Chepák.	6,446	G.O., No. 2494 W., of the 8th November 1882.	6,099	347	347	..	..	..	58	Appropriation not necessary under code paragraph 2293, III.
Do. ..	59	Erecting a memorial to the late Right Honorable W. P. Adam.	10,248	G.O., No. 1150 W., of the 7th May 1884.	9,830	418	418	..	..	..	59	Do. do.
Do. ..	60	Providing additional accommodation for Government central museum.	11,615	G.O., No.	10,827	788	788	..	788	..	60	From Provincial Reserve.
Architect ..	61	Improving the roads in the Chepák park and maintaining trees.	17,987	....	7,437	10,550	5,550	..	5,550	..	61	Rs. 5,550 in addition to the modified grant in budget. Item No. 158, Class A. From Provincial Reserve.
Do. ..	62	Widening the promenade between the Napier bridge and Triplicane creek, and other improvements at Chepák.	78,225	....	47,050	31,175	22,343	..	20,000	..	62	In addition to Rs. 8,832 provided in the budget. Item No. 159, Class A. From Provincial Reserve.
Do. ..	63	New opthalmic hospital at Madras ..	97,663	G.O., No. 693 W., of the 14th March 1884.	..	97,663	..	20,000	..	..	63	In addition to Rs. 20,000 provided in the budget. Item No. 91, Class A. No funds at present available.
Vizagapatam ..	64	New Potinghy Ghât	4,25,391	G.O., No. 3255 W., of the 16th November 1883.	4,10,225	15,166	15,166	..	10,000	..	64	
		Total ..	..	....	..	..	2,34,099	79,879	1,23,512	14,750		
		Registration.										
Vizagapatam ..	1	Sub-registrar's office at Ellamanchili ..	1,680	G.O., No. 248 W., of the 22nd January 1883.	893	787	..	..	..	..	1	Rs. 1,680 provided in the budget. *Vide* Item No. 124, Class A. Rs. 893 resumed.
Do. ..	2	Do. do. at Narisipatam ..	1,690	G.O., No. 382 W., of the 3rd February 1883.	500	1,190	..	..	..	..	2	Rs. 1,690 provided in the budget. Item No. 125, Class A. Rs. 500 resumed.
Godávari, Eastern.	3	Do. do. at Pithápuram ..	2,300	G.O., No. 352 W., of the 1st February 1883.	..	2,300	..	2,300	..	..	3	No funds available.
Do. do.	4	Do. do. at Rámachendrapuram.	2,350	G.O., No. 840 W., of the 14th March 1883.	1,669	681	681	..	681	..	4	From Provincial Reserve.
Godávari, Western.	5	Do. do. at Pentapad ..	2,710	G.O., No. 556 W., of the 20th February 1883.	939	1,771	61	..		..	5	In addition to Rs. 1,710 provided in the budget. No. 99, Class A. The question of funds can be considered later in the year.
Kistna, Eastern.	6	Do. do. at Gunnavaram ..	2,170	G.O., No. 2514 W., of the 7th September 1884.	..	2,170	..	2,170	..	..	6	Item No. 43, Class B. No funds available.
Gudiváda ..	7	Do. do. at Gudiváda ..	2,800	G.O., No. 509 W., of the 15th Feb. 1883.	1,905	895	895		895	..	7	From Provincial Reserve.

Statement of requirements on account of Provincial and Local Incomplete Works for 1883-84 and of New Works sanctioned but not yet commenced—*cont.*

Division.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for		Amount allotted		Item No.	Head of Reserve from which the Appropriation is made.
							For incomplete Works.	For new Works.	For incomplete Works.	For new Works.		
1	2	3	4	5	6	7	8	9	10	11	12	13
		PROVINCIAL—*cont.*	RS.		RS.	RS.	RS.	RS.	RS.	RS.		
		Registration—cont.										
Nellore ..	8	Sub-Register's Office at Kandukúr ..	2,455	G.O., No. 2738 W., of the 20th October 1882.	..	2,455	..	2,455	..	..	8	No funds available.
Cuddapah ..	9	Do. do. at Pulivendla ..	2,320	G.O., No. 1450 W., of the 19th May 1883.	1,902	418	418	..	..	..	9	Appropriation not necessary under code paragraph 2293, III.
Do. ..	10	Do. do. at Proddutur ..	2,240	G.O., No. 1497 W., of the 28th May 1883.	263	1,977	1,977	..	1,977	..	10	From Provincial Reserve.
Do. ..	11	Do. do. at Pullampet ..	2,073	Do. do. ..	1,077	996	996	..	996	..	11	Do. do.
Bellary ..	12	Do. do. at Adóni ..	2,542	G.O., No. 2757 W., of the 2nd October 1883.	1,082	1,460	1,460	..	1,460	..	12	Do. do.
Do. ..	13	Do. do. at Humply ..	2,660	G.O., No. 21 W., of the 8th January 1884.	..	2,660	..	2,660	..	..	13	Item No. 37, Class B. No fund available.
Coimbatore ..	14	Do. do. at Bellangudi ..	2,970	G.O., No. 2292 W., of the 6th September 1882.	2,070	900	900	..	900	..	14	From Provincial Reserve.
Do. ..	15	Do. do. at Coondapoor ..	3,357	G.O., No. 1238 W., of the 25th April 1883.	2,357	1,000	1,000	..	1,000	..	15	Do. do.
Do. ..	16	Do. do. at Cherpalcheri.	2,530	G.O., No. 2652 W., of the 12th October 1882.	570	1,960	1,960	..	1,960	..	16	Do. do.
Do. ..	17	Do. do. at Putúr ..	3,120	G.O., No. 3330 W., of the 22nd November 1883.	..	3,120	..	3,120	..	..	17	Item No. 31, Class B. No funds available.
Do. ..	18	Do. do. at Chaviyoor ..	3,020	G.O., No. 3331 W., of the 22nd November 1883.	..	3,020	..	3,020	..	..	18	Item No. 33, Class B. No funds available.
Do. ..	19	Do. do. at Kuthuperamba.	3,060	Do. do. ..	..	3,060	..	3,060	..	..	19	Item No. 35, Class B. No funds available.
Do. ..	20	Do. do. at Sirinangudi ..	2,650	Do. do. ..	..	2,650	..	2,650	..	..	20	Item No. 36, Class B. No funds available.
Do. ..	21	Do. do. at Udipi ..	3,370	G.O., No. 856 W., of the 28th March 1884.	..	3,370	..	3,370	..	..	21	Item No. 38, Class B. No funds available.
Do. ..	22	Adding a room for the sub-registrar's office at Erode.	1,870	G.O., No. 1837 W., of the 2nd July 1883.	1,270	600	600	..	600	..	22	From Provincial Reserve.
Do. ..	23	Do. do. at Polláchi ..	1,800	Do. do. ..	1,066	734	734	..	734	..	23	Do. do.
Nílgiri ..	24	Sub-registrar's quarters at Vayitiri ..	2,200	G.O., No. 2316 W., of the 17th August 1883.	..	2,200	..	2,200	..	..	24	Item No. 46, Class B. No funds available.
Do. ..	25	Do. do. at Gúdalúr ..	2,200	Do. do. ..	..	2,200	..	2,200	..	..	25	Item No. 47, Class B. No funds available.
North Arcot ..	26	Sub-registrar's office at Tirutani ..	2,230	G.O., No. 3046 W., of the 26th October 1883.	..	2,230	..	2,230	..	..	26	Item No. 45, Class B. No funds available.
Do. ..	27	Do. do. at Tirupati ..	2,320	G.O., No. 3047 W., of the 26th October 1883.	..	2,320	..	2,320	..	..	27	Item No. 44, Class B. No funds available.
South Arcot ..	28	Do. do. at Vriddháchalam.	2,060	G.O., No. 865 W., of the 16th March 1883.	..	2,060	..	2,060	..	..	28	Rs. 2,060 provided in the budget. Item No. 118, Class A.
Do. ..	29	Do. do. at Ullunderpett ..	2,175	G.O., No. 2295 W., of the 2nd May 1883.	..	2,175	..	2,175	..	..	29	Rs. 2,175 provided in the budget. Item No. 121, Class A.
Chingleput ..	30	Do. do. at Madurantakam.	1,920	G.O., No. 3147 W., of the 30th November 1882.	..	1,920	..	1,920	..	..	30	Rs. 1,920 provided in the budget. Item No. 137, Class A.
Do. ..	31	Adding a room for sub-registrar's office to the taluk cutcherry at Trivellúr.	1,550	G.O., No. 1963 W., of the 13th July 1883.	..	1,550	..	1,550	..	..	31	Rs. 1,550 provided in the budget. Item No. 151, Class A.
Madura ..	32	Sub-registrar's office at Sivaganga ..	2,278	G.O., No. 726 W., of the 6th March 1883.	1,425	853	853	..	853	..	32	From Provincial Reserve.
Trichinopoly ..	33	Additional room to the taluk cutcherry at Kulitalai to serve as a sub-registrar's office.	1,775	G.O., No. 2681 W., of the 24th September 1883.	710	1,065	1,065	..	1,065	..	33	Do. do.
Tinnevelly ..	34	Registrar's office at Kocharakulam ..	4,380	G.O., No. 3189 W., of the 12th November 1883.	..	4,380	..	3,000	..	..	34	No funds available.
Do. ..	35	Sub-registrar's office at Srivilliputur ..	2,705	G.O., No. 3424 W., of the 30th November 1883.	..	2,705	..	2,000	..	..	35	Item No. 39, Class B. No funds available.
Trichinopoly ..	36	Do. do. at Turayur ..	2,675	G.O., No. 2466 W., of the 22nd September 1882.	2,357	318	318	..	..	..	36	Appropriation not necessary under code paragraph 2293, III.
Do. ..	37	Do. do. at Jaynkondasholapuram.	2,650	G.O., No. 2466 W., of the 22nd September 1882.	1,850	800	800	..	800	..	37	From Provincial Reserve.
		Total ..	..	....	..	..	14,718	46,460	13,921	..		

Statement of requirements on account of Provincial and Local Incomplete Works for 1883-84 and of New Works sanctioned but not yet commenced—*cont.*

Division.	Item No.	Name of Work.	Amount of Estimate.	Number and Date of Sanction.	Past Expenditure.	Balance of Estimate.	Amount applied for		Amount allotted		Item No.	Head of Reserve from which the Appropriation is made.
							For incomplete Works.	For new Works.	For incomplete Works.	For new Works.		
1	2	3	4	5	6	7	8	9	10	11	12	13
		PROVINCIAL—*cont.*	RS.		RS.	RS.	RS.	RS.	RS.	RS.		
		Police Works.										
Ganjam ..	1	Third-class police station-house at Juddupalli.	618	G.O., No. 551 W., of the 29th February 1884.	..	618	..	618	..	..	1	No funds available.
Do. ..	2	Do. do. at Kottabomalli ..	618	Do. do. ..	..	618	..	618	..	..	2	Do. do.
Do. ..	3	Do. do. at Kukkadakandy ..	620	Do. do. ..	..	620	..	620	..	..	3	Do. do.
Vizagapatam ..	4	Police station-house at Jaganadharajapuram.	1,520	G.O., No. 2339 W., of the 20th August 1883.	701	819	..	..	..	..	4	Rs. 1,520 provided in the budget. Item No. 80, Class A. Rs. 701 resumed.
Nellore ..	5	Police hospital at Ongole	5,589	G.O., No. 2981 W., of the 20th October 1883.	..	5,589	..	2,000	..	..	5	In addition to Rs. 2,500 provided in the budget. Item No. 62, Class A. No funds available at present.
Bellary ..	6	Eight police huts at Humply ..	2,590	G.O., No. 2490 W., of the 25th September 1882.	2,455	135	135	..	..	..	6	Appropriation not necessary under code paragraph 2293, III.
Nellore ..	7	Police huts at Kandukúr	1,890	G.O., No. 1746 W., of the 15th July 1881.	..	1,890	..	1,890	..	..	7	No funds available.
Kurnool ..	8	Nine constables' huts at Pattikonda ..	2,300	G.O., No. 453 W., of the 19th February 1884.	..	2,300	..	2,300	..	..	8	Do. do.
Cuddapah ..	9	Police huts at Balapanoor	1,900	G.O., No. 4648 W., of the 7th December 1878.	1,068	832	832	..	832	..	9	From Provincial Reserve.
Bellary ..	10	Police hospital at Hospet	640	G.O., No. 533 W., of the 28th February 1884.	..	640	..	640	..	640	10	Do. do.
Coimbatore ..	11	Second-class police station at Uppinangadi.	2,775	G.O., No. 18 W., of the 7th January 1884.	..	2,775	..	2,775	..	..	11	Item No. 27, Class B. No funds available.
Do. ..	12	Third-class police station at Shoranur.	2,077	G.O., No. 1972 W., of the 4th August 1882.	1,205	872	872	..	872	..	12	From Provincial Reserve.
South Arcot ..	13	Hospital ward for use of the police force at Tirukoilúr.	2,120	G.O., No. 19 W., of the 7th January 1881.	522	1,598	478	..	..	..	13	In addition to Rs. 1,120 provided in the budget. Item No. 83, Class A. Additional funds can be applied for, if necessary, later in the year.
Do. ..	14	Office for the Assistant Superintendent of police at Tirukoilúr.	2,355	G.O., No. 3189 W., of the 5th December 1882.	1,470	885	885	..	885	..	14	From Provincial Reserve.
South Arcot ..	15	Police station-house at Oothangal Mangalam.	1,240	G.O., No. 2918 W., of the 16th October 1883.	375	865	466	..	..	..	15	In addition to Rs 399 provided in the budget. Item No. 76, Class A. Additional funds can be applied for, if necessary, later in the year.
Tinnevelly ..	16	Police station-house at Vachakaraputty.	1,300	G.O., No. 2881 W., of the 3rd November 1882.	853	447	266	..	..	..	16	Appropriation not necessary under code paragraph 2293, III.
Do. ..	17	Police huts at Vachakaraputty ..	1,188	G.O., No. 2881 W., of the 3rd November 1882.	960	228	178	..	..	..	17	Appropriation not necessary under code paragraph 2293, Rule III.
Do. ..	18	Police huts at Pavúr	1,017	G.O., No. 3119 W., of the 16th December 1881.	655	362	362	..	..	..	18	Appropriation not necessary under code paragraph 2293, III.
Do. ..	19	Do. at Sivaghiri	1,100	G.O., No. 3023 W., of the 5th December 1881.	408	692	692	..	692	..	19	From Provincial Reserve.
Do. ..	20	Do. at Vajaikulam	1,200	G.O., No. 2542 W., of the 28th September 1882.	585	615	615	..	615	..	20	Do. do.
Madura ..	21	Do. at Yelumalai	1,150	G.O., No. 3009 W., of the 14th November 1882.	700	450	450	..	..	..	21	Appropriation not necessary under code paragraph 2293, III.
Trichinopoly ..	22	Second-class police station-house at Kovarankurchi.	1,655	G.O., No. 2817 W., of the 26th October 1882.	1,048	607	607	..	607	..	22	From Provincial Reserve.
Do. ..	23	Five police huts at Andimadam ..	1,125	G.O., No. 883 W., of the 3rd April 1882.	374	751	751	..	751	..	23	Do. do.
Tanjore ..	24	First-class police station-house at Tanjore.	1,971	G.O., No. 2899 W., of the 6th September 1882.	1,964	7	58	..	..	..	24	Appropriation not necessary under code paragraph 2293, III.
Do. ..	25	Second-class police station-house at Kornad.	2,040	G.O., No. 1449 W., of the 19th May 1883.	999	1,041	1,041	..	..	..	25	Rs. 1,000 provided in budget. Item No. 84, Class A.
Do. ..	26	Police station-house at Oratnad ..	1,690	G.O.. No. 2106 W., of the 1st August 1883.	53	1,637	1,637	..	..	..	26	Rs. 1,690 provided in budget. Item No. 77, Class A.
Do. ..	27	Do. do. at Kumbakónam.	3,200	G.O., No. 4589 W., of the 6th June 1883.	2,207	993	144	..	..	..	27	In addition to Rs. 849 provided in the budget. Item No. 70, Class A. Funds may be applied for, if necessary, later in the year.
		Total ..	..		..	..	10,469	11,461	5,254	640		

Statement E.

Statement showing Distribution of Budget Grants under Police and Registration.

Executive Division.	Locality.	Budget Item.	Name of Work.	Amount of Estimate.	Amount of Grant.
				RS.	RS.
		71	*Grant for Police Works costing above Rs.* 1,000 *and below Rs.* 2,500 *each, as detailed below.*	...	...
Nílgiri ...	Cherambádi.	72	Third-class police station-house ...	...	2,000
Do. ...	Nadgany ...	73	Do. do. ...	...	2,000
Do. ...	Nellakóta ...	74	Do. do. ...	...	2,000
Do. ...	Nadgany ...	75	Three police huts	...	1,800
South Arcot.	Mangalam.	76	Third-class police station-house ...	1,240	399
Tanjore ...	Oratnad ...	77	Do. do. ...	1,690	1,690
Vizagapatam.	Kurapam ...	78	Second-class police station-house ...	1,520	1,520
Do. ...	Kumaradu.	79	Do. do ...	1,520	1,520
Do. ...	Jagannádha-rajapuram.	80	Do. do. ...	1,520	1,520
Ganjam ...	Chicacole ...	81	Seven Police huts	1,176	622
North Arcot.	Maderpauk.	82	Do. do.	1,520	945
South Arcot.	Tirukoilúr...	83	Hospital ward and latrine for the police force at	2,120	1,120
Tanjore ...	Kornad ...	84	Police station-house	2,040	1,000
			Total ...	.	18,134
			REGISTRATION.		
Kurnool ...	Chagulmarry	110	Minor works as detailed below ...	...	...
Coimbatore.	Karúr ...	111	Sub-registrar's office	2,093	2,093
Do. ...	Perandorai.	112	Do.	2,120	2,120
Do. ...	Konghiem.	113	Do.	2,310	2,310
Do. ...	Bhaváni ...	114	Do.	2,130	2,130
Do. ...	Mannárghat.	115	Do.	2,040	2,040
North Arcot.	Puttúr ...	116	Do.	2,450	2,450
South Arcot.	Vriddhá-chalam.	117	Do.	2,240	1,240
Vizagapatam.	Sálúr ...	118	Do.	2,060	2,060
Godávari, Western.	Tanuku ...	119	Do.	1,880	1,880
South Arcot.	Ulundurpet.	120	Do.	2,415	2,415
Eastern Godávari.	Alamúr ...	121	Do.	2,175	2,175
Ganjam ...	Narsannapet.	122	Do.	2,450	2,450
Vizagapatam.	Ellaman-chilly.	123	Do.	1,650	1,650
Do. ...	Narsapatam.	124	Do.	1,680	1,680
Madura ...	Tirushuli ...	125	Do.	1,690	1,690
Do. ...	Dindigul ...	126	Do.	2,125	2,125
Do. ...	Ootamapoli-um.	127	Do.	2,125	2,125
Tinnevelly.	Nángunéri.	128	Do.	2,095	2,095
Do. ...	Tuticorin ...	129	Do.	1,960	1,960
Do. ..	Sátúr ...	130	Do.	2,290	2,290
Do. ...	Virudupati.	131	Do.	2,070	2,070
Do. ...	Sankaranai-nárkoil.	132	Do.	2,215	2,215
Do. ...	Otapidáram.	133	Do.	1,950	1,950
Do. ...	Tenkási ...	134	Do.	2,090	2,090
Vizagapatam.	Pálkonda ...	135	Do.	1,960	1,960
Chingleput.	Maduránta-kam.	136	Do.	1,820	1,750
		137	Do.	1,920	1,920

Statement showing Distribution of Budget Grants under Police and Registration.—*cont.*

Executive Division.	Locality.	Budget Item.	Name of Work.	Amount of Estimate.	Amount of Grant.
				RS.	RS.
Salem ...	Námakal ...	138	Sub-registrar's office	1,870	1,870
Do. ...	Razipur ...	139	Do.	2,037	2,037
Tanjore ...	Tiruviár ...	140	Do.	2,235	2,235
Do. ...	Máyavaram.	141	Do.	2,060	2,060
Do. ...	Velangaman.	142	Do.	2,140	2,140
Do. ...	Vallam ...	143	Do.	2,240	2,060
Negapatam.	Mannárgudi.	144	Do.	2,000	2,000
Madura ...	Tirupatúr ...	145	Do.	2,425	2,425
Do. ...	Ramnad ...	146	Do.	2,225	2,225
Coimbatore.	Udamálpet.	147	Adding a room for sub-registrar's office to the taluk cutcherry.	1,800	1,800
Do. ...	Dhárapuram.	148	Do. do.	1,800	1,800
Godávari, Eastern.	Peddápuram.	149	Do. do.	1,940	1,940
Do. ...	Rajahmun-dry.	150	Do. do.	1,760	1,760
Chingleput.	Tiruvallúr...	151	Do. do.	1,550	1,550
			Total ...	...	82,835

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

Read—the following papers:—

From the Superintending Engineer,	I Circle,	dated	22nd May 1884,	No.	59 G.L.
,, ,,	I ,,	,,	6th June ,,	,,	86 ,,
,, ,,	II ,,	,,	3rd May ,,	,,	41 ,,
,, ,,	II ,,	,,	16th ,,	,,	,, 458 K.S.
,, ,,	III ,,	,,	2nd ,,	,,	eight statements.
,, ,,	III ,,	,,	16th ,,	,,	No. 318.
,, ,,	IV ,,	,,	16th ,,	,,	,, 231 E.W.
,, ,,	IV ,,	,,	20th ,,	,,	,, 233 ,,
,, ,,	IV ,,	,,	29th ,,	,,	,, 246 ,,
,, ,,	V ,,	,,	16th ,,	,,	,, 593.
,, ,,	V ,,	,,	16th ,,	,,	,, 594.
,, ,,	V ,,	,,	16th ,,	,,	,, 595.
,, ,,	V ,,	,,	16th ,,	,,	,, 596.
,, ,,	V ,,	,,	3rd June ,,	,,	,, 849.
,, ,,	V ,,	,,	5th ,,	,,	,, 896.
,, ,,	VI ,,	,,	8th May ,,		statement.
,, Consulting Architect to Government,		,,	17th June ,,		No. 249.
,, Quartermaster-General,		,,	21st ,,	,,	,, 165-A.

Order—dated 24th June 1884, No. 1581 W., Public Works.

With the papers read above, Superintending Engineers and the Consulting Architect submit statements of the estimated requirements for the current official year, in lump sums for minor works and tools and plant for each division; and in detail for the incomplete works of the past year, and for new works recommended to be taken up in 1884-85.

2. Under "Imperial other services," the demands against "Original works" amount to—

	Rs.
Postal	5,151
Telegraph	1,000
Salt	553

of which only Rs. 1,404 under Postal have been allotted for the completion of two incomplete works. The balance of the minor works grant, after the above allotment for unfinished works, under Postal, Rs. 10,596, and the whole of the minor works grant under Telegraph, Rs. 6,000, are placed at the disposal of the Director-General of the Post Office, and of the Director-General of Telegraphs, as shown in Statement A. Those officers will allot the requisite funds for work to be undertaken during the year.

3. The sum of Rs. 553 is required under Salt, to permit of the early completion of the head sluice across Mercanam brine supply channel. On receipt of a reply to a

reference made to the Revenue Department, the requisite reappropriation statement, reallotting the sum required from the budget provision under Item No. 10, opening and maintaining the Covelong bar, will be submitted for the early sanction of the Government of India.

4. The allotments under Repairs will be found in Statement A.

5. The demands of Superintending Engineers under Imperial Military amount, as shown below, to Rs. 1,31,411 :—

	Rs.
For minor works anticipated to be placed at the disposal of Superintending Engineer in lump sum	28,006
For incomplete minor works	4,875
„ incomplete major works	34,677
„ new minor works	22,080
„ new major works	41,773
Total ...	1,31,411

6. As the minor works grant, Item No. 5, Class B, amounts to only Rs. 22,320, the demands of Superintending Engineer have been greatly reduced, as shown below; and (provision to meet the same having been made) the balance of the minor works grant, Rs. 10,961, has been placed in lump sum at the disposal of officers commanding divisions and districts, to be distributed individually in such proportion as His Excellency the Commander-in-Chief may deem proper :—

	Rs.
For incomplete minor works	1,961
„ incomplete major works	5,103
„ new minor works	1,500
„ new major works	2,795
Total ...	11,359

7. There are several new minor works for which funds have been applied for by Superintending Engineers; but as the balance of the minor works grant, after providing for works now on hand, has been placed at the disposal of the military officers commanding divisions and districts, application should be made to them by Superintending Engineers to meet outlay on such works as are to be carried out during 1884-85.

8. A reference has been made to the Military Department respecting suggestions of the Superintending Engineer, V Circle, to resume the budget grant for "Alterations and additions to wash-house for the British Infantry at Bangalore," and to reduce the budget grant for "Armaments of Fort St. George." On receipt of a reply, the necessary order will issue.

9. The allotment under Repairs will be found in Statement A. The grant to the Coimbatore Division includes the allotment required for special repairs to the European barracks at Cannanore. The demands of Superintending Engineers under this head amount to Rs. 2,95,000, but have been reduced to Rs. 2,75,000 to bring the sum within the provision in the budget.

10. The demands of Superintending Engineers under Provincial, for anticipated outlay on minor works, amount to Rs. 53,180, but have been reduced to Rs. 34,750 as shown in Statement C.

11. On account of incomplete works of last year, exclusive of Police and Registration, the demands amount to—

	Rs.
Major works	2,34,099
Minor works	12,063
Total ...	2,46,162

but have been reduced to Rs. 1,33,367 as below :—

	Rs.
For major works	1,23,512
„ minor works	9,855
Total ...	1,33,367

Allotments have been made to the extent of the funds available.

12. Under New Works the demands amount to—

	Rs.
Major works	79,879
Minor works	14,192
Total ...	94,071

but have been reduced, as shown below, to Rs. 18,205 :—

	Rs.
Major works	14,750
Minor works	3,455
Total ...	18,205

Funds have been allotted for two minor works, viz., the temporary buildings for the establishment of the Head Assistant Collector at Naduvatam, and the improvements to the Tiruvadamarudúr palace, as also for the following major works :—

(1) Iron-safe for Taluk Cutcherries in the Vizagapatam District.
(2) Quarters for Police Inspector and an Apothecary at Anantapur.
(3) Bungalow for the Sub-divisional officer at Anantapur.

13. The demands under Registration amount to Rs. 61,178, of which the sum of Rs. 46,460 is on account of new works. Funds have been allotted for the completion of all the incomplete works to the extent of Rs. 13,921; and of the new works, for which grants have been applied for, provision has been made in the budget for four works to the amount of Rs. 7,705.

14. Under Police, the demands amount to Rs. 21,930. Provision has been made in the budget for these works, aggregating Rs. 2,690; and Rs. 5,894 have been allotted from the reserve.

15. The total allotments made from the Provincial reserve amount to Rs. 2,06,137.

16. The demands under Repairs and Tools and Plant, and the allotments passed, are shown in Statement C. To meet the demands under Communications and Miscellaneous Public Improvement, Rs. 3,600 have been transferred from the budget provision under Civil Buildings, viz., Rs. 1,600 to the grant under Communications and Rs. 2,000 to Miscellaneous Public Improvement. The provision under these heads will now stand as below :—

	Rs.
Civil Buildings	1,38,800
Communications	49,600
Miscellaneous Public Improvement	6,600
Total ...	1,95,000

17. The following sums, aggregating to Rs. 9,741, have been resumed and added to the Provincial reserve :—

	Rs.
Improvements to the Collector's house at Masulipatam	1,155
Cemetery at Pudipatnam	111
Improvements to the Deputy Collector's Cutcherry at Tanjore ...	219
District Munsif's Court at Sivaganga	1,200
Additions and improvements to the Public Works offices at Chepâk ...	4,962
Sub-Registrar's office at Yellamanchili	893
Do. at Narisipatam	500
Police station-house at Jayanadharajapuram	701
Total ...	9,741

18. The distribution of the lump sum grants under Police and Registration, Items Nos. 71 and 110 in the Provincial budget, is shown in Statement E.

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

To Superintending Engineers.
To the Consulting Architect to Government.
" General Superintendent, Public Works Stores and Workshops.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.
" Financial Department.
" Revenue "
" Judicial "
" Educational "
" ~~Medical~~ Military "
" Ecclesiastical "
" Director-General of Post Offices.
" " of Telegraphs.

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GENERAL.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated June, 24th.

Read. *Encl.*

G.O., 24th June 1884, No. 158 1 W.

JUNE.

Reserve

Distribution of the amount of the — with Government for 1884-85.