M.R O. 1—77,006—8-6-37.

(1) Number of pages 14

(2) Date of repair 9-9-38

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 4211 Press / Mis.

Dated 26-9-1892.

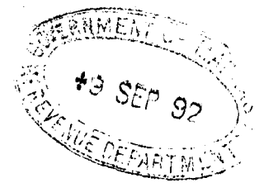
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10.

FINANCIAL DEPARTMENT.

MISCELLANEOUS.

No. 3262Mis.



CALCUTTA, THE 30TH AUGUST 1892.

FROM H. H. RISLEY, ESQ., C.I.E.,

Secretary to the Government of Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF MADRAS.

SIR,

I AM directed to forward, for the information of the Government of Madras, a copy of the Report on the working of the Government Cinchona Plantation and Factory in Bengal during 1891-92, together with a copy of the Resolution recorded by the Lieutenant-Governor thereon.

I have the honour to be,

SIR,

Your most obedient servant,

H A McIntosh

for Secretary to the Government of Bengal.

C. E. G.—Reg. No. 3537C—48—1-9-92.

FINANCIAL DEPARTMENT.

MISCELLANEOUS.

CALCUTTA, THE 30TH AUGUST 1892.

RESOLUTION No. 3258Mis.

READ—

The Annual Report of the Government Cinchona Plantation and Cinchona Factory in Bengal for the year 1891-92.

THE Report is submitted by Mr. J. A. Gammie, Acting Superintendent.

In marked contrast with the heavy rainfall in 1890-91, the year under review witnessed the scantiest fall at the plantation since its formation, being 81 inches against an average of 126. Fortunately it was well distributed and proved sufficient for the requirements of the plants. Flights of locusts visited the cinchona reserves, but caused no material injury to the cinchona trees, which they passed by for the leaves of the acacias, and the wormwood which abounds in these parts. The number of cinchona plants in the plantation on the 1st April 1892 was 4,369,971, of which 3,149,971 were quinine-yielders. The cultivation of the *Calisaya Verde* and *Morada* species, of which great hopes were at first entertained, is being gradually abandoned, their yield of quinine being scanty as compared with that of *Calisaya Ledgeriana*, which must occupy the first place on the plantation as a quinine-yielder. The statistics given at the end of the report show that no red bark trees were planted out during the year, while the number of such plants up-rooted was 200,000. This is in accordance with the policy steadily observed for years past of gradually reducing the red bark trees, which, though rich in the inferior alkaloids, are poor in quinine. The complete exhaustion of these plants is only a question of time, the object being to gradually convert the Government Plantation into a source of quinine rather than of cinchona febrifuge.

2. The crop collected amounted to 285,560lbs. of dry bark against 293,972lbs. in the previous year, of which 80,430lbs. were of red bark, 114,540 of *Ledgeriana*, 70,870 of hybrid, 19,170 of *Verde* and *Morada*, and 550 of Crown or *Officinalis* bark. In other words, the crop was composed of 205,130lbs. of the quinine-yielding, and 80,430 lbs of the febrifuge yielding barks. The whole of this crop, with the exception of a small quantity supplied on indent or sold to Government institutions, was made over to the Febrifuge Factory for disposal.

3. The outturn of the factory, which is regulated by the demand, was 4,586lbs. of sulphate of quinine, and 4,190lbs. of febrifuge, against 4,010 and 4,031lbs., respectively, in 1890-91. The entire quantity was manufactured by the fusel oil process, which continues to work satisfactorily. The issues from the factory were larger than those in the preceding year, as will be seen from the following table:—

	1891-92.			1890-91.		
	Sulphate of Quinine.	Cinchona Febrifuge.	Total.	Sulphate of Quinine.	Cinchona Febrifuge.	Total.
	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.
To Medical Depôt, Calcutta	1,022 0	1,013 0	2,035 0	650 0	200 0	850 0
Ditto Bombay	.....	.....	.....	400 0	1,000 0	1,400 0
Ditto Meean Meer	712 0	842 0	1,554 0	1,000 0	.....	1,000 0
To Inspector-General of Civil Hospitals, Bengal	3 8	306 4	309 12	.....	*222 12	222 12
To Inspector-General of Jails, Bengal	20 4	80 0	100 4	4 0	†106 8	110 8
To Commissariat Department for Port Blair ...	.....	.....	.....	75 0	.....	75 0
Sold to Government officers	1,952 14	.....	1,952 14	1,651 11½	.....	1,651 11½
Sold to Government officers and to the general public.	.....	2,457 12	2,457 12	.....	‡2,321 8	2,321 8
Given as samples	3 2½	26 12	29 14½	8 13	§6 4	15 1
Total ...	3,713 12½	4,725 12	8,439 8½	3,789 8½	3,857 0	7,646 8½

* Of this 6lbs. 12oz. were crystaline febrifuge.
† Ditto 7 „ 0 „ ditto ditto.
‡ Ditto 6 „ 0 „ ditto ditto.
§ Ditto 0 „ 4 „ ditto ditto.

It is not explained why the medical depôt at Bombay has ceased to indent for the drug. In 1890-91 the demand from Bombay was no less than 400lbs. of sulphate of quinine, and 1,000lbs. of the cinchona febrifuge. The report also fails to distinguish clearly the supply to dispensaries; this should be separately shown in future reports.

4. The revenue derived from the sale of sulphate of quinine, cinchona febrifuge, cinchona bark and other products of the plantation amounted to Rs. 1,09,321-12-9 against Rs. 1,18,576 in the previous year:—

	1891-92 Rs.	A.	P.	1890-91. Rs.	A.	P.
By sale of febrifuge, sulphate of quinine, &c.	60,713	7	3	60,885	0	0
By credit from the medical depôts and the Commissariat Department	44,363	5	6	52,956	4	0
By credit from the Inspector-General of Civil Hospitals, Bengal ...	3,118	8	0	3,141	12	0
By credit from the Inspector-General of Jails, Bengal ...	1,126	8	0	1,593	0	0
Total ...	1,09,321	12	9	1,18,576	0	0

The net profit on the working of the estate amounts to Rs. 7,962-12-8 against Rs. 17,040-2 in 1890-91. The decline is attributed to the unusually low market rates, above which the Government quinine is not sold. The profit, small as it is, is sufficient. As explained in last year's Resolution, the Government does not aim at a profit, the sole object in establishing the cinchona plantations being to secure for the people a cheap remedy for fever. In pursuance of this principle the question of reducing the price of Government quinine lately engaged the attention of Government. Under the orders of the Government of India, the rate for locally manufactured quinine supplied to Government should be the rate in England of Messrs. Howard and Son's quinine on the 1st January each year converted into Indian Currency at the official rate of Exchange. The price of the quinine supplied to Government officers and Local authorities is, however, slightly higher than that charged to medical depôts, and the question is under consideration whether the former should not be placed in the same position as the latter. Another important scheme is now being matured by which pure Government quinine will be placed within the easy reach of the poorer classes in Bengal. The quinine will be made up into packets containing five grains each and sold for a pice apiece. The sales will be conducted at all public offices in the interior, such as thánas and police outposts, dispensaries, offices of managers of Ward's estates, etc., and also through the more effective agency of the village post office.

5. The Lieutenant-Governor's acknowledgments are again due to Dr. King and Mr. Gammie for their efficient management of the Department.

By order of the Lieutenant-Governor of Bengal,

H. H. RISLEY,
Secretary to the Government of Bengal.

No. 3259Mis.

Copy forwarded to the Superintendent of the Cinchona Plantation for information.

No. 3260Mis.

Copy, with a copy of the Report, forwarded to the Inspector-General of Civil Hospitals, Bengal, for information,

By order of the Lieutenant-Governor of Bengal,

H. J. McINTOSH,
Offg. Under-Secretary to the Govt. of Bengal.

Calcutta,
The 30th August 1892.

C. E. G.—Reg. No. 3536C—546—1-9-92.

ANNUAL REPORT ON THE GOVERNMENT CINCHONA PLANTATION AND FACTORY IN BENGAL FOR THE YEAR 1891-92.

No. 52C, dated Mungpoo, Kurseong, the 11th July 1892.

From—J. A. Gammie, Esq., Acting Superintendent, Cinchona Cultivation in Bengal,

To—The Secretary to the Government of Bengal, Financial Department.

I have the honour to forward herewith the annual report of the Cinchona Plantations and Factory for the year 1891-92.

Thirtieth Annual Report of the Government Cinchona Plantation and Factory in British Sikkim for the year 1891-92, *by* J. A. Gammie, Esq., *Acting Superintendent of Cinchona Cultivation in Bengal.*

The rainfall for the year 1891 was the lightest known at Mungpoo since its occupation by the Cinchona Department, being only 81 inches against an average of 126 and a maximum of 156 inches. But it was fairly well distributed over the growing season, and proved quite sufficient for the needs of the Cinchona trees, both young and old; and as there was no damage to roads or plantations from landslips or deluges, a saving in expenditure was effected. For several days the cinchona reserves were visited by immense numbers of locusts, but they did no appreciable damage to the cinchona trees, only a very few of them having been stripped of their leaves. They also did but little damage to the maize crop, the principal food-grain grown by the plantation coolies, as by the time of their arrival it was so nearly ripe that, although the locusts ate up all the green leaves, the cobs, which they barely touched, were so far advanced that they matured perfectly without them. The locusts ate, by preference, the leaves of the Acacia tribe, and so long as they lasted touched but little else. Their next favourite food was the wormwood which springs up so abundantly on abandoned fields and other open spaces in Sikkim.

2. *Changes in the Plantation.*—The estimated number of trees uprooted during the year, and consequently cut out of the returns, was 340,000, of which 200,000 were of the red or cinchona febrifuge-yielding sort, and 140,000 of the quinine yielders. The total number of plants put out in new clearances was 194,110—all of them quinine yielders, and many plants (also quinine yielders) were, besides, used to supply vacancies in the younger plantations as in former years. On the 1st April last there were in the open plantations 3,149,971 plants of the quinine-yielding and 1,220,000 of the febrifuge-yielding sorts, or a total of all kinds of 4,369,971, equal to an area of about 2,250 acres. As the Calisaya Verde and Morada sorts have not borne out the great hopes entertained of them in their earlier years, when they made rapid growth and their barks yielded a good proportion of quinine, their cultivation has not been extended, but is being gradually abandoned as the successive plantings arrive at maturity and are uprooted for their bark. Although the proportionate yield of quinine to the bark continues to be good, the total yield is scanty compared with that of Calisaya Ledgeriana, the bark being of a thinner texture and weighing lighter, and the trees die off at an earlier age in these plantations. Calisaya Ledgeriana continues to thrive and yield well, and it seems unlikely that it will ever be superseded as a quinine yielder in Sikkim, although it is hoped that continuous selection of seed may give still better results.

3. *The year's crop.*—There was collected during the year 205, 130 lbs. of quinine-yielding and 80,430 lbs. of febrifuge-yielding bark, or a total crop of 285,560 lbs, of which 182,440 lbs., were from the Mungpoo, 65,780 lbs., from the Sittong, and 37,340 lbs. from the Rungjung Divisions. The whole crop, with the exception of 1,824 lbs. sold to the public and Government institutions, was made over to the factory.

4. *Plantation expenditure.*—The budget allotment for the year was Rs. 70,884, of which Rs. 4,000 was afterwards transferred to the Factory allotment and Rs. 65,271-1-8 spent on the plantation, thus showing a net saving of Rs. 1,612-14-4. The details of expenditure are as follows:—

	Rs.	A.	P.
European establishment (including all salaries except that of Dr. King, Superintendent of the Botanic Garden, Calcutta), coolie labour, and office establishment ...	58,909	7	4
Keep of animals for plantations	900	0	0
Contingencies, &c., including service postage stamps, &c.	3,832	1	4
Travelling allowance	44	0	0
Stores from England	1,585	9	0
Total ...	65,271	1	8

As 285,560 lbs. of bark were collected and Rs. 65,271-1-8 were spent on the plantation, it follows that the cost per lb. of dry bark collected during the year was As. 3-7·885.

5. *Factory.*—As in last year, the whole of the bark worked up both for quinine and febrifuge was extracted by the mixed oil process, which was again found to work satisfactorily. The expenditure for 1891-92 was Rs. 38,595-1-5, or Rs. 5,588-1-1 in excess of that of last year, when, however, 735 lbs. less of medicine was produced, the outturn for 1891-92 being 4,586 lbs. of sulphate of quinine and 4,190 lbs. of Cinchona febrifuge, against the outturn for 1890-91 of 4,010 lbs. of sulphates and 4,031 lbs. of febrifuge.

6. *Sales of medicine.*—The total issues for the year were 4,725¾ lbs. of febrifuge and 3,713 lbs 12½ oz. of sulphate of quinine, and were as follows:—

	lbs.	oz.
To Medical Depôt, Calcutta—		
Cinchona febrifuge	1,013	0
Sulphate of quinine	1,022	0
To Medical Depôt, Meean Meer—		
Cinchona febrifuge	842	0
Sulphate of quinine	712	0
To Inspector-General of Civil Hospitals, Bengal (for district medical officers, Bengal)—		
Cinchona febrifuge	306	4
Sulphate of quinine	3	8
To Inspector-General of Jails, Bengal (for jails and lock-ups in Bengal)—		
Cinchona febrifuge	80	0
Sulphate of quinine	20	4
Sold to Government officers—		
Sulphate of quinine	1,952	14
Sold to Government officers and to the general public—		
Cinchona febrifuge	2,457	12
Given as samples—		
Cinchona febrifuge	26	12
Sulphate of quinine	3	2½
Total ...	8,439	8½

7. *Stock account.*—The bark in stock, of all sorts, on the 31st March 1892 was 451,217 lbs., or 18,700 lbs. less than on the same date of last year. But the less valuable red barks show a decrease of 21,810 lbs. and the better yellow sorts an increase of 3,110 lbs. The stock valuation compared with last year is:—

Stock on 31st March 1891.

	Rs.	A.	P.
Chemicals and stores	2,000	0	0
Cinchona febrifuge, 1,753¼ pounds, at Rs. 8 per pound ...	14,026	0	0
Sulphate of quinine, 1,783 pounds 4½ oz., at Rs. 13-9-3·91 per pound	24,222	1	0
Bark, 469,917 pounds, valued at an average of As. 3 per pound ...	88,109	7	0
	1,28,357	8	0
Increase in value ...	2,507	3	0
Total ...	1,30,864	11	0

Stock on 31st March 1892.

	Rs.	A.	P.
Chemicals and stores ...	2,000	0	0
Cinchona febrifuge, 1,217 pounds 8 oz., at Rs. 8 per pound ...	9,740	0	0
Sulphate of quinine, 2,655½ pounds, at Rs. 13 per pound ...	34,521	8	0
Cinchona bark, 451,217 pounds, at As. 3 per pound ...	84,603	3	0
Total ...	1,30,864	11	0

8. Financial results of the year. The balance sheet works out as follows:—

BALANCE SHEET.

Dr.	Rs.	A.	P.		Rs.	A.	P.	Cr.
To value of stock on 31st March 1891	1,28,357	8	0	By value of stock on 31st March 1892	1,30,864	11	0	
To cash received from the Treasury during 1891-92 for expenditure on the plantations, viz., Rungbee, Mungpoo, Sittong, and Rungjung	63,685	8	8	By cash receipts from sale of sulphate of quinine, cinchona febrifuge, and cinchona seed and bark, &c.	60,713	7	3	
To stores from England for plantations	1,585	9	0	By credit from medical depôts for cinchona febrifuge, viz.—				
To cash received from Treasury during 1891-92 for expenditure on Factory	36,624	14	5	Rs. A. P.				
To stores from England for Factory	1,970	3	0	Calcutta ... 10,130 0 0				
Profit on the year's working ...	7,962	12	8	Mean Meer ... 8,420 0 0	18,550	0	0	
				By credit from medical depôts for sulphate of quinine, viz.—				
				Rs. A. P.				
				Calcutta ... 15,026 9 6				
				Mean Meer ... 10,468 10 0	25,495	3	6	
				By credit from Inspector-General of Civil Hospitals, Bengal, for cinchona febrifuge and sulphate of quinine supplied to medical officers of Bengal, viz.—				
				Rs. A. P.				
				For cinchona febrifuge ... 3,062 8 0				
				For sulphate of quinine ... 56 0 0	3,118	8	0	
				By credit from Inspector-General of Jails, Bengal, for cinchona febrifuge and sulphate of quinine supplied to jails and lock-ups in Bengal, viz.—				
				Rs. A. P.				
				For cinchona febrifuge ... 800 0 0				
				For sulphate of quinine ... 324 0 0	1,124	0	0	
				By credit from medical depôts, for cinchona bark, viz.—				
				Rs. A. P.				
				Calcutta ... 130 10 0				
				Mean Meer ... 187 8 0	318	2	0	
				By credit from Inspector-General of Jails, Bengal, for cinchona bark supplied to the Alipore Jail Hospital	2	8	0	
Total ...	2,40,186	7	9	Total ...	2,40,186	7	9	

9. Financially the result of the past year's working is disappointing, showing the small profit of Rs. 7,962-12-8 only. The market rates, above which the Government quinine is not sold, kept lower during the year than ever previously known, and have almost reached the lowest figure at which the Sikkim plantations can be profitably worked. But this is rather a matter for congratulation than otherwise to the Government and to the public generally, who can now procure a five-grain dose of sulphate of quinine for the trifling sum of one pice, thus bringing so indispensable a medicine in malarious countries within the reach of the very poorest, and fulfilling the primary object of Government in introducing the cinchona plant to India. Efforts continue to be steadily made towards cheapening the cost of production, with good prospects of success. Although the plantations show so poor a financial result, it is believed that the saving to the Government of India through the cheapening of quinine has been considerable; and there can be no question that to the action of Government in introducing the cinchona to Madras and Bengal, and their liberality in distributing seeds to private planters in India, Ceylon, and other countries, this cheapness of quinine is mainly if not entirely due.

10. About 25 acres of new extensions were made to the fuel plantation, which continues to make satisfactory growth, and from now will yield from thinnings, the wood for building coolie huts, &c., and a considerable proportion of the firewood for the Factory.

11. The sum of Rs. 2,477-12, collected from the cinchona reserves during the year on account of land rents and grazing dues, was paid into the Darjeeling Treasury as land revenue from Government estates, and is not shown in the accompanying Cinchona Department accounts.

12. Dr. King, the Superintendent, was absent during the year for three months on privilege leave, when the Deputy Superintendent was in charge. Mr. G. A. Gammie, the third assistant, was deputed for six months to the North-West Provinces to officiate for the Director of the Botanical Department of Northern India. The other assistants and clerks had no leave and worked, as in former years, to the satisfaction of the Superintendent.

13. The usual appendices are herewith submitted.

APPENDIX A.

Table showing the number and distribution of Cinchona plants in the Government Cinchona Plantations, Sikkim, on 1st April 1892.

Mungpoo Division.

	Plantations.				Nursery.			
	Number in permanent plantation on 1st April 1891.	Number of plants uprooted during the year 1891-92.	Planted during the year 1891-92.	Number in permanent plantation on 1st April 1892.	Number of stock plants for propagation on 1st April 1892.	Number of seedlings and rooted cuttings in nursery beds for permanent plantation.	Number of rooted plants in seed and cutting beds.	Total nursery stock on 1st April 1892.
Cinchona Hybrid	939,770	25,000	28,590	943,360	4,000	...	...	4,000
„ Succirubra	700,000	150,000	...	550,000	...	...	...	...
„ Calisaya Ledgeriana ...	1,119,400	20,000	121,020	1,220,420	...	180,000	...	180,000
„ Verde and Morada.	102,300	10,000	...	92,300	...	...	...	...
„ Officinalis	10,000	4,000	...	6,000	...	...	...	...
„ Hard Carthagena ...	1	...	...	1	...	...	...	...
Total ...	2,871,471	209,000	149,610	2,812,081	4,000	180,000	...	184,000

Sittong Division.

Cinchona Hybrid	211,940	...	...	211,940	...	...	...	...
„ Succirubra	20,000	50,000	...	670,000	...	...	...	...
„ Calisaya Ledgeriana ...	174,490	20,000	44,500	198,990	...	45,000	...	45,000
„ „ Verde and Morada.	12,000	12,000	...	...	...	...	...	...
Total ...	1,118,430	82,000	44,500	1,080,930	...	45,000	...	45,000

Rungjung Division.

Cinchona Hybrid	9,160	...	...	9,160	...	...	...	...
„ Calisaya Ledgeriana ...	467,800	30,000	...	457,800	...	...	...	...
„ „ Verde and Morada.	29,000	19,000	...	10,000	...	...	...	...
Total ...	525,960	49,000	...	476,960	...	...	...	...

APPENDIX B.

Table showing the actual details of the year's planting, 1891-92.

	Hybrid.	Calisaya Ledgeriana.	Total.
Mungpoo Division ...	28,590	121,020	149,610
Sittong „ ...	...	44,500	44,500
Rungjung „ ...	...	...	...
Total ...	28,590	165,520	194,110

APPENDIX C.

Table showing the total number of Cinchona trees of all sorts standing in the Permanent Plantations on 31st March 1892.

	Red Cinchona, Succirubra.	Yellow Cinchona, Calisaya Ledgeriana.	Yelow Cinchona, Calisays Verde and Morada.	Hybrid, unnamed variety.	Other kinds.	Total of all sorts.
Mungpoo Division ...	550,000	1,220,420	92,300	943,360	6,001	2,812,081
Sittong „ ...	670,000	198,990	...	211,940	...	1,080,930
Rungjung „ ...	.....	457,800	10,000	9,160	...	476,960
GRAND TOTAL OF ALL SORTS	1,220,000	1,877,210	102,300	1,164,460	6,001	4,369,971

APPENDIX D.

Account of dry Cinchona Bark collected during season 1891-92.

	Root bark.	Sem bark.	Branch bark.	Total.	
	lbs.	lbs.	lbs.	lbs.	lbs.
SUCCIRUBRA—					
Mungpoo	10,270	8,790	4,490	23,550	
Labdah	880	510	810	2,200	
Sittong	25,390	8,410	10,880	54,680	
Total Succirubra	36,540	27,710	16,180	80,430	80,430
LEDGERIANA—					
Mungpoo	13,600	7,990	8,830	30,420	
Labdah	18,710	6,460	20,570	45,740	
Sittong	2,290	980	1,540	4,810	
Rungjung	8,460	8,000	17,110	33,570	
Total Ledgeriana ...	43,060	23,430	48,050	114,540	114,540
HYBRID—					
Mungpoo	14,390	8,230	10,210	32,830	
Labdah	8,460	3,580	5,920	17,960	
Sittong	2,960	1,080	2,250	6,290	
Rungbee	3,670	4,090	6,030	13,790	
Total Hybrid ...	29,480	16,980	24,410	70,870	70,870
VERDE AND MORADA—					
Mungpoo	1,980	1,440	1,310	4,730	
Labdah	4,420	2,240	4,010	10,670	
Rungjung	1,380	830	1,560	3,770	
Total Verde and Morada ...	7,780	4,510	6,880	19,170	19,170
OFFICINALIS—					
Labdah	290	100	160	550	
Total Officinalis ...	290	100	160	550	550
GRAND TOTAL OF ALL SORTS ...	117,150	72,730	95,680	285,560	285,560

APPENDIX E.

Stock of bark on 1st April 1892.

			lbs.
Succirubra	bark	...	35,658
Calisaya Ledgeriana	„	...	184,054
Officinalis	„	...	2,540
Hybrid	„	...	198,541
Verde and Morada	„	...	30,424
	Total	...	451,217

APPENDIX F.

Table showing the produce of the Government Cinchona Plantations in British Sikkim since their beginning.

Mungpoo Division.

				lbs.
Dry bark collected by pruning and thinning during			1869-70 ...	2,400
Ditto	ditto	ditto	1870-71 ...	12,500
Ditto	ditto	ditto	1871-72 ...	39,000
Ditto	ditto	ditto	1872-73 ...	*Nil.*
Ditto	ditto	ditto	1873-74 ...	16,000
Ditto	ditto	ditto	1874-75 ...	39,405
Ditto	ditto	ditto	...	211,931
Crop of 1875-76	...	...	...	207,781
1876-77	...	...	...	344,225
1877-78	...	...	...	261,659
1878-79	...	...	...	345,740
1879-80	...	...	...	348,560
1880-81	...	...	...	298,780
1881-82	...	...	...	358,100
1882-83	...	...	...	253,270
1883-84	...	...	...	300,125
1884-85	...	...	...	152,460
1885-86	...	...	...	146,979
1886-87	...	...	...	217,780
1887-88	...	...	...	293,750
1888-89	...	...	...	222,025
1889-90	...	...	...	199,670
1890-91	...	...	...	182,440
1891-92	...	...	...	
			Total ...	4,454,580

Sitong Division.

				lbs.
Dry bark collected by pruning and thinning during			1879-80 ...	15,850
Ditto	ditto	ditto	1880-81 ...	28,965
Ditto	ditto	ditto	1881-82 ...	42,790
Ditto	ditto	ditto	1882-83 ...	38,880
Ditto	ditto	ditto	1883-84 ...	51,890
Ditto	ditto	ditto	1884-85 ...	39,076
Ditto	ditto	ditto	1885-86 ...	52,950
Ditto	ditto	ditto	1886-87 ...	78,652
Ditto	ditto	ditto	1887-88 ...	72,630
Ditto	ditto	ditto	1888-89 ...	67,740
Ditto	ditto	ditto	1889-90 ...	50,180
Ditto	ditto	ditto	1890-91 ...	57,440
Ditto	ditto	ditto	1891-92 ...	65,780
			Total ...	662,823

Rungjung Division.

				lbs.
Dry bark collected by thinning during			1888-89 ...	11,610
Ditto	ditto		1889-90 ...	32,500
Ditto	ditto		1890-91 ...	36,862
Ditto	ditto		1891-92 ...	37,340
			Total ...	118,312

APPENDIX G.

Table showing the amount of Cinchona febrifuge, Crystalline febrifuge, and Sulphate of Quinine, produced from the commencement to 31st March 1892, and the stock at the latter date.

		lbs.	oz.
Manufactured in 1874-75 ...	...	48	10
Ditto 1875-76 ...	...	1,940	6
Ditto 1876-77 ...	...	3,750	12
Ditto 1877-78 ...	...	5,162	0
Ditto 1878-79 ...	...	7,007	0
Ditto 1879-80 ...	...	9,434	13
Ditto 1880-81 ...	...	9,296	0
Ditto 1881-82 ...	...	8,010	0
Ditto 1882-83, viz.—			
Cinchona febrifuge ...	...	10,363	4
Crystalline „ ...	...	300	0
Manufactured in 1883-84, viz.—			
Cinchona febrifuge ...	...	8,464	0
Crystalline „ ...	...	250	0
Manufactured in 1884-85, viz.—			
Cinchona febrifuge ...	...	6,079	0
Crystalline „ ...	...	385	0
Manufactured in 1885-86, viz.—			
Cinchona febrifuge ...	...	4,625	0
Crystalline „ ...	...	118	0
Manufactured in 1886-87, viz.—			
Cinchona febrifuge ...	...	6,641	0
Crystalline „ ...	...	149	0
Manufactured in 1887-88, viz.—			
Cinchona febrifuge ...	...	6,916	0
Crystalline „ ...	...	1	0
Sulphate of quinine ...	...	331	8
Manufactured in 1888-89, viz.—			
Cinchona febrifuge ...	...	6384	0
Sulphate of quinine ...	...	2191	0
Manufactured in 1889-90, viz.—			
Cinchona febrifuge ...	...	6,578	0
Sulphate of quinine ...	...	1,833	2
Manufactured in 1890-91, viz.—			
Cinchona febrifuge ...	...	4031	0
Sulphate of quinine ...	...	4,010	0
Manufactured in 1891-92, viz.—			
Cinchona febrifuge ...	...	4,190	0
Sulphate of quinine ...	...	4,586	0
Total ...		123,075	7

	lbs.	oz.
Supplied to Medical Depôt, Calcutta, viz.—		
Cinchona febrifuge	32,533	3
Crystalline „	24	8
Sulphate of quinine	2,929	8
Supplied to Medical Depôt, Bombay, viz.—		
Cinchona febrifuge	15,600	0
Crystalline „	.....	
Sulphate of quinine	874	0
Supplied to Medical Depôt, Madras, viz.—		
Cinchona febrifuge	5,730	0
Crystalline „	20	0
Sulphate of quinine	400	0
Supplied to Medical Depôt, Meean Meer, viz.—		
Cinchona febrifuge	842	0
Sulphate of quinine	1,712	0
Supplied to Straits Settlements ...	30	0
Supplied to Colonial Government, Mauritius	150	0
Supplied to Commissariat Department for Port Blair	155	0
Supplied to Inspector-General of Civil Hospitals, Bengal (for district medical officers of Bengal), viz.—		
Cinchona febrifuge	5,867	12
Crystalline „	103	4
Sulphate of quinine	3	8
Supplied to Inspector-General of Jails, Bengal (for jails and lock-ups in Bengal), viz.—		
Cinchona febrifuge	750	8
Crystalline „	58	8
Sulphate of quinine	24	5
Sold to Government officers for cash, viz.—		
Sulphate of quinine	4,264	13½
Sold for cash, viz.—		
Cinchona febrifuge	45,956	12
Crystalline „	986	8
Samples, viz.—		
Cinchona febrifuge	163	2
Crystalline „	10	4
Sulphate of quinine	12	15½
Stock in hand on 31st March 1892, viz.—		
Cinchona febrifuge	1,217	8
Sulphate of quinine	2,655	8
Total ...	123,0757	

APPENDIX H.

Cash Income for 1891-92.

		Rs.	A.	P.
Cash received from sale of cinchona febrifuge and paid into the Bank of Bengal and into other treasuries in Bengal, North-Western Provinces, and Assam ...		24,862	2	0
Cash received from sale of sulphate of quinine and paid into the Bank of Bengal and into other treasuries in Bengal		31,113	12	0
Cash received from sale of cinchona bark, &c., and paid into the Bank of Bengal		4,737	9	3
Credit for cinchona febrifuge supplied to the medical depôts, viz.—				
	Rs. A. P.			
Calcutta	10,130 0 0			
Meean Meer	8,420 0 0			
		18,550	0	0

	Rs.	A.	P.
Credit for sulphate of quinine supplied to the medical depôts, viz.—			
Calcutta 15,026 9 6			
Meean Meer 10,468 10 0			
	25,495	3	6
Credit for cinchona febrifuge supplied to Inspector-General of Civil Hospitals, Bengal (for district medical officers of Bengal)	3,062	8	0
Credit for cinchona febrifuge supplied to Inspector-General of Jails, Bengal (for jails and lock-ups in Bengal)	800	0	0
Credit for sulphate of quinine supplied to Inspector-General of Civil Hospitals, Bengal (for district medical officers of Bengal)	56	0	0
Credit for sulphate of quinine supplied to Inspector-General of Jails, Bengal (for jails and lock-ups in Bengal)	324	0	0
Credit for cinchona bark supplied to medical depôts, viz.—			
Calcutta 130 10 0			
Meean Meer 187 8 0			
	318	2	0
Credit for cinchona bark supplied to the Inspector-General of Jails, Bengal (for the Alipore Jail Hospital)	2	8	0
Total credit in India ...	1,09,321	12	9

J. A. GAMMIE,

Acting Superintendent, Cinchona Cultivation in Bengal.

W. M D'C.—Reg No. 1991J—524—22-8-92.

Ex. 20682 g83

(1892.)

REVENUE DEPARTMENT.

ABSTRACT.

Current Number 7865

From

The Government of Bengal
(Financial Deptt)

Rp 26/9.

No. 4211 dated 26. September 1892

Order mine
Hd
23 Sep. 22/9/92

Communicated
to the Govt. Botanist &
Dirr: of the Govt. Cinchona
Plantations.

Rual
12-9-92

[illegible]

[illegible] forwarded on four days
[illegible] No. 4211
[illegible] 26 September 92

Dated 30 Aug. 92.

Received 9 Sep. 92

Enclosures 2.

No. 3262 this

SUBJECT.

Forwarding a copy of the Report on the working of the Govt Cinchona Plantations & Factory in Bengal during 1891-92.

To The Govt Botanist Darjeeling
Copy [illegible] Commr of R.

P. L. O.

Bsm.
12.IX.92

C 14/9
R 73/9